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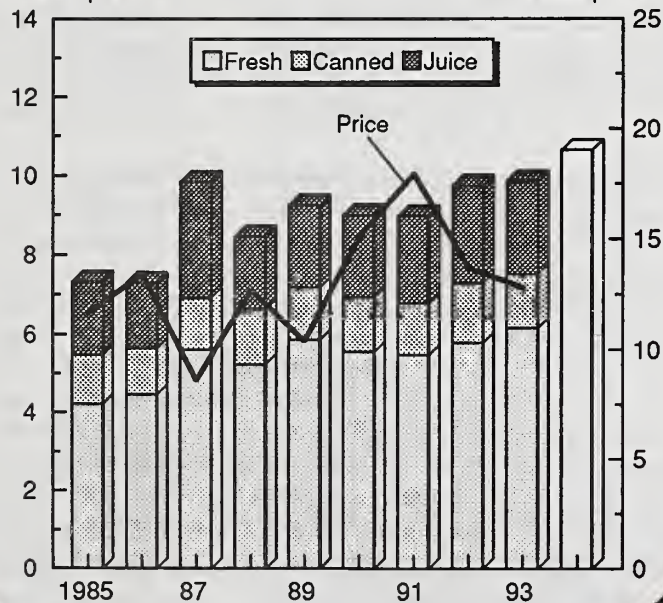
# Fruit and Tree Nuts

## Situation and Outlook Report

### U.S. Apple Use and Price

Million pounds

Cents/pound





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## Summary

Apple and pear prices are low and large 1994 crops will continue the pressure. Fruit prices have been mixed in 1993/94, with citrus mostly higher and noncitrus lower. Fresh and processing orange prices rebounded as tighter supplies of California navel and Florida Valencia oranges boosted prices from 1992/93 lows. However, a larger California Valencia crop pushed down summer 1994 prices.

USDA forecasts another abundant apple crop in 1994. Washington, California, and New York crops are projected larger than in 1993, while reduced output is expected in Pennsylvania, Michigan, and most other Eastern and Central States. U.S. apple production in 1994 is forecast up 1 percent. Larger apple supplies brought lower prices in 1993/94. Exports are booming, with Mexico the main destination.

A 3-percent increase in 1994 California grapes will pressure prices and boost consumption. Production of wine- and raisin-type grapes is expected to increase and table-type output remain unchanged from the year earlier. Expanding exports supported prices for fresh grapes in 1993. Reduced domestic and import shipments reflected lower U.S. wine consumption. Domestic raisin shipments increased 10 percent in 1993/94 and per capita consumption rose to nearly 2 pounds.

U.S. pear production will increase again in 1994. West Coast output of Bartlett pears, which are mainly processed, is forecast up 6 percent while other pear production remains unchanged from 1993. Lower prices are expected. An abundant 1993 pear crop, low prices, and NAFTA helped boost exports, with Mexico accounting for the bulk of the gain.

Hard winter freezes in many states damaged peach and cherry trees and smaller 1994 crops are forecast. While many states' crops were reduced by the harsh winter, peach production in California, Georgia, and South Carolina is expected to be up. U.S. peaches are forecast 7 percent less than the 1993 and 1992 crops.

Sweet cherry production in 1994 is expected to be down less than 1 percent from the year earlier, with increased output from California and Oregon balancing reductions in Washington and Michigan. The tart-cherry crop is forecast down 21 percent from 1993. The freeze-reduced Michigan crop will keep frozen-cherry supplies tight.

Rain damage to California's 1994 tree fruit crops was minimal, compared to the spring of 1993, and output of apricots, plums, and prunes rose sharply. California

kiwifruit and olive output is expected to decline in 1994. U.S. kiwifruit consumption was at a new high in 1993 due to record production and higher imports from Chile. Despite a substantial 1993 California olive crop, imports were up 11 percent, and ending inventories were relatively high.

Setbacks in Florida and California brought U.S. strawberry production down 1 percent in 1993/94, but record-high output the prior year left ample frozen supplies. Total U.S. blueberry production will fall 15 percent in 1994, due to winter damage, but large frozen stocks will dampen price gains.

Although U.S. banana imports picked up early in 1994 after staying near 1992 levels in 1993, prices show some signs of recovery from a 2-year slump. Mango consumption rose as increased imports from Mexico more than offset sharply lower Florida output in 1993. Fresh pineapple and papaya consumption climbed with higher Hawaiian output and U.S. imports.

Orange prices were lower in July due to larger Valencia supplies from California. A smaller navel orange crop boosted fresh-market prices for most of the 1993/94 navel season. Higher fresh grapefruit prices and less sweetness early in the season dampened U.S. consumption in 1993/94 and high juice stocks pressured processed prices.

Orange juice prices have declined under the weight of large U.S. inventories, expected near-normal Brazilian juice production, and prospects for a large Florida orange crop in 1994/95. U.S. orange juice imports from Mexico were 26 percent above the 5-year average during January-June 1994.

Higher almond output will replenish low stocks. The 1994 walnut crop is forecast the same as last year and hazelnut production is forecast lower. Industry expectations are for reduced pecan output following bumper 1993 crops in most states. The value of 1993 tree nut crops was a record-high \$1.7 billion, with all except pecans registering gains.

A special article examines the effects of a Federal marketing order on the California plum industry. Selected economic variables are contrasted before and after the order was terminated in 1991. Results indicate that terminating the Federal order increased price variability, reduced the demand for plums, and lowered grower revenue and prices. Available data indicates shipping patterns and grower-to-f.o.b. price margins were not significantly affected.



## Fruit Prices Mixed

*Oranges rebounded from extremely low prices and pushed up the indexes of grower and retail fruit prices in 1993/94. However, apple and pear prices were down and large 1994 crops will continue the pressure.*

### Grower Prices for Oranges and Grapes Up

Grower price indexes for fruit were above year earlier levels from July 1993 until June 1994. During the first half of 1994, monthly indexes averaged 5 percent higher than the same time in 1993. Prices for both fresh and processing oranges rebounded in 1993/94 and underlie most of the index gain. Since October 1993, monthly grower prices for all oranges have been 35-65 percent above the year earlier. Reduced supplies of California navel and Florida Valencia oranges boosted prices from the lows of 1992/93. However, a larger California Valencia crop pushed down summer 1994 prices.

U.S. grower prices for fresh-market grapes averaged 60 percent higher in 1993 than in 1992. High quality and strong demand contributed to the higher prices. Expanding exports will help support table grape prices in 1994. The average price of grapes used for wine was stable in 1993, while the price of grapes used for raisins declined 5 percent. Higher fresh grape prices helped raise the 1993 average grower price for all grapes 9 percent from 1992.

USDA's preliminary estimate of the 1993/94 season-average grower price for fresh-market apples was down 7 percent from 1992/93. Although U.S. apple output rose only slightly, Washington production increased nearly 8 percent and fresh use rose 12 percent. Abundant world supplies of apple juice contributed to an 18-percent decline in the U.S. average processing-apple price. Grower prices for fresh pears averaged nearly 60 percent lower in January-June 1994 than in 1993, pressured by a 12-percent gain in fresh utilization of U.S. pear production.

Despite the smaller crop forecast for 1994, heavy fresh peach shipments from California, South Carolina, and Georgia brought USDA's grower prices down from the year earlier in May and June 1994. Reduced marketings from mid-Atlantic and Great Lakes areas will support fresh peach prices in August and September.

### Retail Prices for Oranges and Bananas Rise

The Consumer Price Index (CPI) for fresh fruit has been above year-earlier levels since July 1993. Between January and July 1994, monthly indexes averaged 8 percent higher than the same period in 1993. Retail prices for navel oranges, bananas, and grapes were up, but apples

and pears declined. A smaller California navel orange crop was probably mostly responsible for the rise in the fresh fruit CPI. From November 1993 through May 1994, retail prices for navel oranges averaged 56 cents a pound, 6 percent above 1992/93.

From January through July 1994, retail banana prices averaged 47.0 cents a pound, up from 46.1 cents during the same period in 1993. Banana prices may be turning around from a cycle of excess supply and low prices. During 1993 retail banana prices averaged 44 cents a pound, down from 46 cents in 1992, and 48 cents in 1991.

Retail prices for Thompson Seedless grapes averaged 14 percent higher in 1993 and from January through July 1994 were up 2 percent from a year earlier with fewer imports. California table-grape output is not expected to increase in 1994, so prices will likely be firm until imports pick up this winter.

Retail prices for Red Delicious apples averaged 83.4 cents a pound in 1993, down from 89.0 cents in 1992. During January-July 1994, apple prices averaged 81.2 cents compared to 82.0 cents the year before. D'Anjou pear prices averaged 78.7 cents a pound, 8 percent less than January through June 1993. Increased apple and pear production in 1994 points toward continued bargain prices for consumers.

Figure 1

### Prices Received by Growers

% of 1977

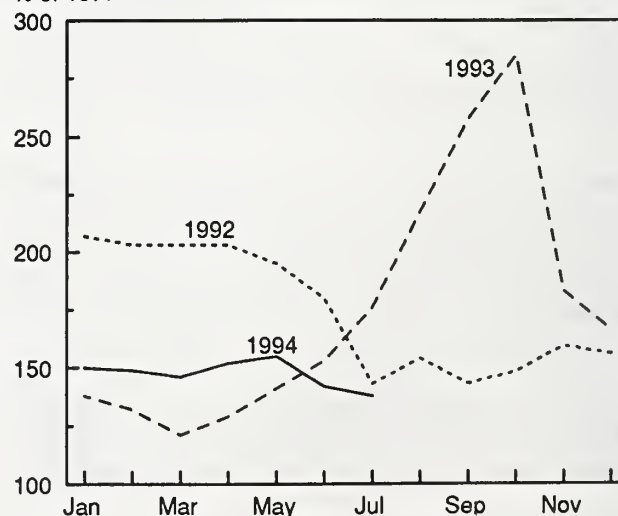


Table 1--U.S. monthly-average-price indexes for fruits, selected months, 1993-94

Items	1993						1994						
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
--1982=100--													
Index of all fruit prices received by growers 1/	101	125	147	163	105	95	86	85	83	87	89	81	79
Producer Price Index:													
Fresh fruits--	80.5	84.7	92.3	89.2	91.4	95.0	82.7	85.5	87.4	80.8	89.6	80.2	83.5
Citrus fruits	123.2	133.3	167.0	137.4	114.8	95.5	85.2	89.8	96.8	100.5	107.1	117.3	121.9
Other fruits	67.6	69.6	68.8	70.0	79.6	91.8	77.4	79.9	80.2	69.2	81.9	69.6	70.3
Canned fruits and juices--	126.5	126.8	126.3	125.8	126.8	126.4	126.7	126.8	125.6	126.8	125.9	126.4	126.2
Canned fruits	128.3	127.7	126.3	125.6	127.7	126.7	127.8	127.8	124.8	127.2	125.5	126.5	126.1
Canned fruit juices	126.7	127.7	127.8	127.4	127.7	127.7	127.5	127.6	127.6	128.0	127.6	127.8	127.7
Frozen fruits and juices--	114.0	114.0	114.1	114.9	116.4	115.9	116.1	113.6	113.2	113.0	112.2	110.6	110.0
Frozen fruits	116.0	116.0	110.8	115.9	113.7	111.8	112.7	112.7	111.2	--	112.4	--	--
Frozen juices	113.0	113.0	114.0	114.1	116.2	116.0	116.0	113.1	112.8	112.8	111.6	109.8	108.8
Dried fruits	118.9	118.1	117.8	120.7	120.1	119.4	121.1	121.5	120.6	120.6	123.0	123.3	121.6
Consumer Price Index: --1982-84=100--													
Fresh fruits	178.7	184.7	193.3	197.7	194.4	205.4	207.2	194.8	199.1	198.1	204.6	193.3	199.6
Processed fruits	131.0	132.2	132.4	132.8	133.4	133.7	134.6	133.0	133.3	133.9	132.6	132.6	133.8
Fruit juices and frozen fruits	129.6	130.9	131.9	132.2	133.2	133.4	134.1	132.4	132.5	133.4	131.2	131.5	132.9
Canned and dried fruits	134.3	134.7	132.3	132.9	132.1	132.9	134.3	133.1	134.2	133.6	135.2	134.7	135.1

-- = Not available.

1/ Index for fresh and processed.

Sources: Bureau of Labor Statistics, U.S. Department of Labor and Economic Research Service, USDA.

Figure 2

**Fresh Fruit: Consumer Price Index**

% of 1982-84

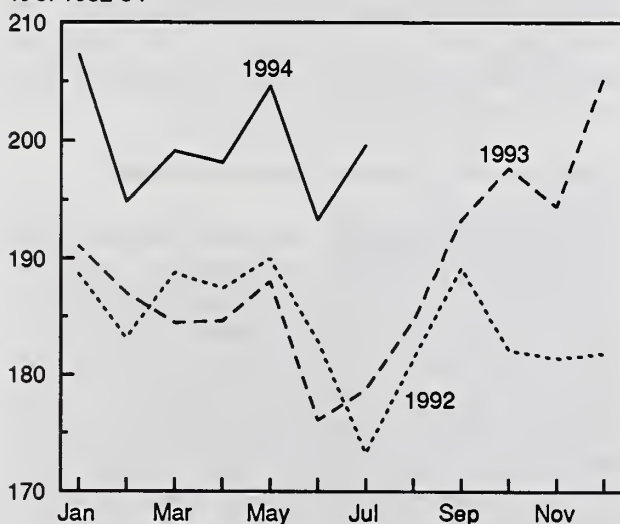
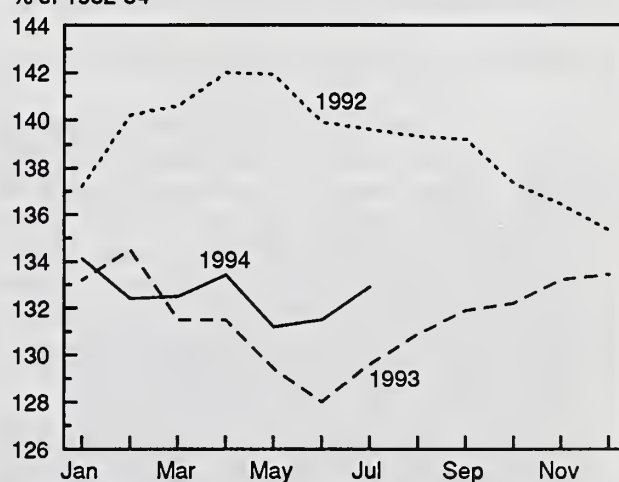


Figure 3

**Frozen Fruit and Juice: Consumer Price Index**

% of 1982-84





## Large Apple Crops in the West Boost Exports

*An ample apple supply brought lower prices in 1993/94. Washington had near-record output in 1993 and an additional gain is expected in 1994. Exports are booming, with Mexico the main destination.*

### Another Hardy Apple Forecast

USDA forecasts another large apple crop in 1994. The August forecast indicated a 5.41-million short-ton crop, which exceeds the previous record of 5.37 million tons in 1987. Washington, California, and New York apple crops were projected larger than in 1993, while reduced output was expected in Pennsylvania, Michigan, and most other Eastern and Central States. Total U.S. apple production in 1994 was forecast up 1 percent from 1993.

Washington had a tremendous bloom and, despite scattered hail and reduced water allocations in parts of the lower Yakima Valley, the apple crop forecast was 2.75 million tons, up 10 percent from 1993. California had an excellent bloom and nearly ideal growing conditions, providing apples with good color and size, as well as a 5-percent production increase from a year earlier. New York's 1994 apple crop forecast was 18 percent more than the freeze-reduced 1993 crop, despite some winter injury in the Hudson Valley and Lake Champlain regions and dry conditions in the Hudson Valley.

Frigid winter temperatures, spring frosts, and summer hail limited apple production in many Eastern and Central States. Michigan had good bloom conditions in most areas and good-to-excellent apple quality, however, production projections were down 12 percent from 1993. The 1994 Pennsylvania apple crop forecast was down 21 percent from a year earlier, with spotty production and some varieties showing less damage than others.

### Apple Stocks and Shipments Soar in 1994

The U.S. apple inventory has been relatively high since the 1993 harvest when total production reached 5.36 million tons, up 1 percent from 1992 and nearly equal to the record 1987 crop. Apple stocks ranged from 2 percent above the year earlier in November and December 1993 to 26 percent higher in June 1994. However, fresh shipments were brisk with monthly movement well above average, and more than 90 percent of the apples in storage on November 1, 1993, were gone by July 1, 1994.

According to the International Apple Institute, U.S. stocks were 20 percent above the year earlier on July 1, 1994, and 41 percent higher than the 5-year average. Apples intended for the fresh market were up 25 percent and processing apple stocks were 4 percent higher. By region, apple stocks were up 28 percent in the West, but down 35

percent in the Northeast, down 8 percent in the Central region, and down 4 percent in the South.

Washington accounted for 86 percent of the July apple stocks and 61 percent of the apples in storage were Red Delicious. Stocks of Red Delicious were 28 percent higher than the year before and up 25 percent from the 5-year average. Granny Smith production increased so much in 1994 that July stocks were twice as high as the year before. The Golden Delicious inventory was down 1 percent from July 1, 1993, but 19 percent higher than the 5-year average.

### Apple Prices Slide

Prices that growers received and consumers paid for apples were lower in 1993/94 than the prior season. USDA's preliminary estimate of the 1993/94 season-average grower price for all apples was down nearly 7 percent from 1992/93 and fresh-market apple prices also averaged 7 percent lower. Abundant world supplies of apple juice pressured U.S. processing-apple prices down 18 percent from the prior year. Lower prices brought the value of the 1993 U.S. apple crop down 5 percent from 1992, to \$1.36 billion.

Retail prices for Red Delicious apples averaged 83.4 cents a pound in 1993, down from 89.0 cents in 1992. During the first 6 months of 1994, prices averaged 80.6 cents compared to 81.4 cents a pound in January-June 1993. Retail prices are typically highest in July and August, and are expected to rise seasonally in 1994, but remain below the year earlier.

### Apple Exports to Mexico Continue Climbing

Plentiful supplies and lower prices have helped promote apple exports, as did the North American Free Trade Agreement (NAFTA) that went into effect January 1, 1994. U.S. apple exports from January through June 1994 were up 44 percent from the year earlier and Mexico accounted for most of the gain. Although U.S. apple output increased only slightly in 1993, Washington's fresh utilization was up 12 percent and prices were 9 percent lower. Washington typically provides nearly 70 percent of U.S. fresh-market apples.

The effect of NAFTA on apple exports to Mexico was probably small since the provisions for 1994 only reduced Mexico's tariff on U.S. apples from 20 to 18 percent.



Apple exports were booming before NAFTA took effect. Mexico became the fastest growing U.S. apple export market after removing its import licensing requirement in 1991. Apple exports from the United States to Mexico increased from 24,000 short tons in 1991 to 82,000 tons in 1992. In 1993, Mexico imported more U.S. apples than any other country, nearly 120,000 tons, and accounted for 21 percent of total U.S. apple exports.

U.S. apple exports from August 1993 through June 1994 were up 25 percent from the same period in 1992/93. Although exports to Taiwan, the largest foreign market for U.S. apples in 1992/93, were down 13 percent, exports to Mexico were up 53 percent. Exports to other Asian markets were up markedly (82 percent to Thailand, 107 percent to Indonesia, and 79 percent to Malaysia) and more than compensated for a 3-percent decline in U.S. apple shipments to Canada.

Figure 5

## U.S. Grower Prices for Fresh Apples

\$/pound

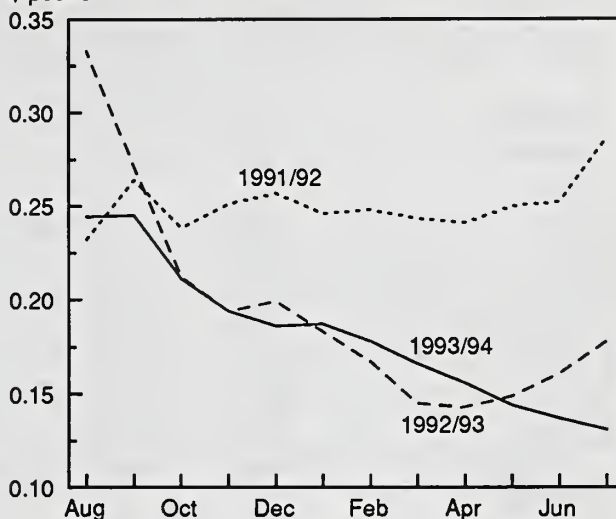


Figure 4

## U.S. Fresh-Market Apple Supply and Use

Million pounds

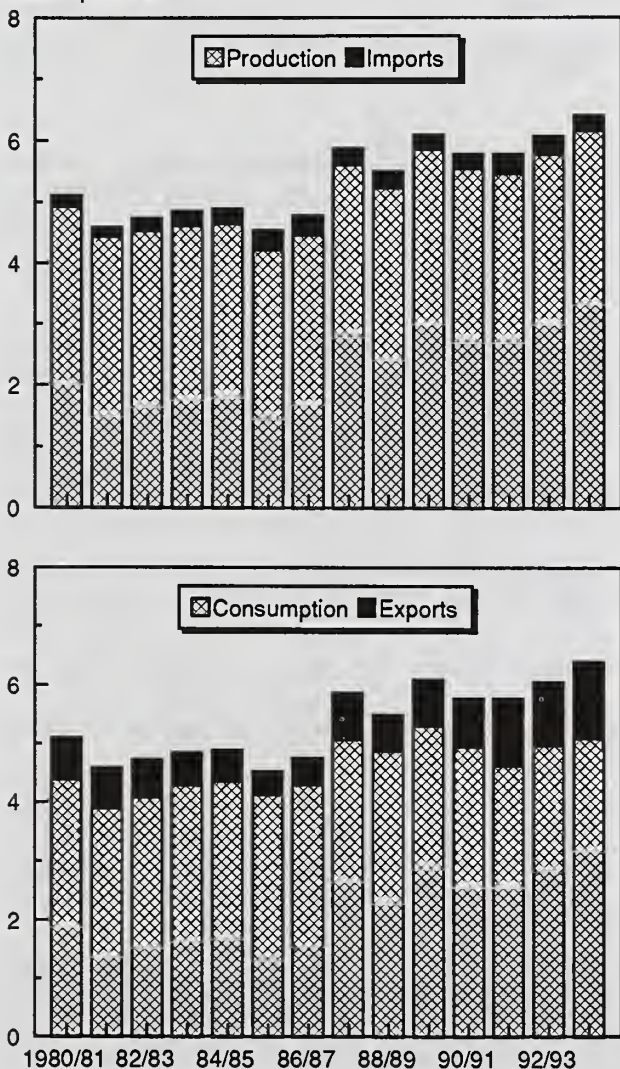


Figure 6

## U.S. Apple Juice Supply and Use

Million gallons

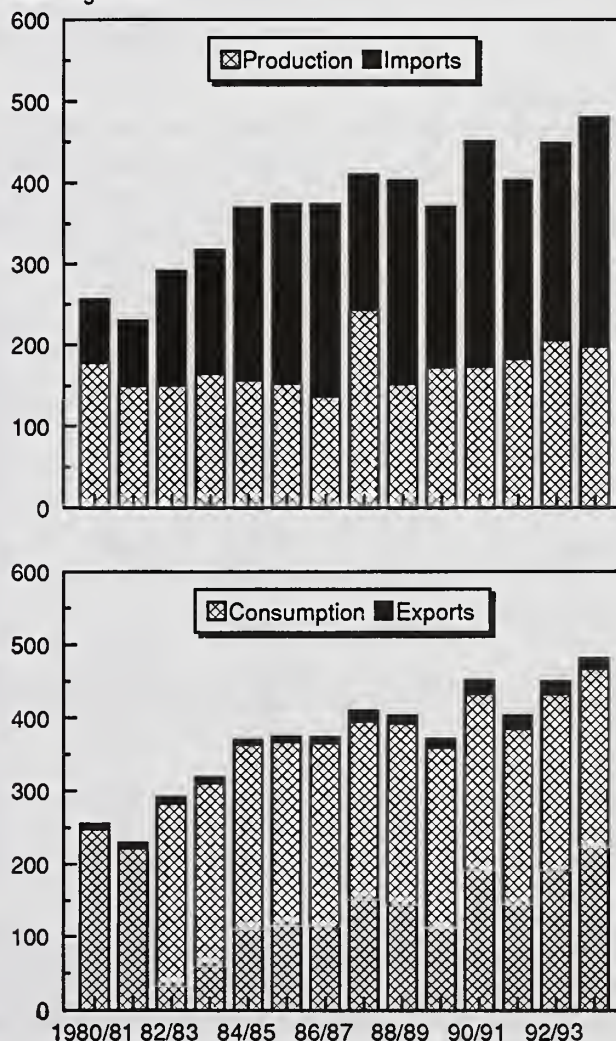


Table 2--Apples, commercial crop 1/: Total production and season-average price received by growers, 1991-93 and indicated 1994 production

State and area	Production 2/				Price per short ton		
	1991	1992	1993	1994	1991	1992	1993
	-- 1,000 short tons --				-- Dollars --		
Eastern States:							
Connecticut	13.5	21.0	12.3	12.5	546	432	470
Delaware	12.5	10.5	14.0	11.0	218	196	212
Georgia	16.0	12.5	17.0	14.0	272	374	292
Maine	34.0	41.5	27.5	31.0	458	320	412
Maryland	21.0	25.0	21.0	14.0	298	202	282
Massachusetts	31.0	42.5	29.5	29.5	508	326	404
New Hampshire	20.0	27.0	18.3	17.5	474	340	424
New Jersey	46.0	27.5	37.5	37.0	332	270	318
New York	525.0	585.0	435.0	515.0	254	198	232
North Carolina	130.0	120.0	160.0	115.0	178	150	116
Pennsylvania	235.0	250.0	265.0	210.0	204	172	172
Rhode Island	2.8	3.3	2.7	2.5	578	554	586
South Carolina	20.0	34.0	30.0	30.0	198	288	262
Vermont	26.5	25.0	19.0	19.0	434	238	340
Virginia	210.0	185.0	185.0	150.0	218	172	152
West Virginia	100.0	112.5	95.0	80.0	198	166	166
Total	1,443.3	1,522.3	1,368.7	1,288.0			
Central States:							
Arkansas	5.0	4.0	6.0	3.5	338	252	328
Illinois	34.5	44.0	45.0	25.0	348	400	338
Indiana	30.0	35.0	40.0	25.0	428	326	332
Iowa	4.0	7.0	4.8	5.0	580	466	588
Kansas	3.8	3.0	3.5	2.8	472	494	338
Kentucky	10.0	8.0	11.0	5.0	442	444	388
Michigan	440.0	540.0	510.0	450.0	218	170	170
Minnesota	12.7	14.5	11.5	12.0	858	740	658
Missouri	20.0	18.5	28.0	16.0	416	396	376
Ohio	60.0	57.5	67.5	45.0	470	404	340
Tennessee	6.5	6.5	10.5	6.5	308	352	342
Wisconsin	30.0	31.5	31.0	31.0	416	450	448
Total	656.5	769.5	768.8	626.8			
Western States:							
Arizona	28.5	45.0	30.5	30.5	282	166	132
California	400.0	420.0	440.0	460.0	420	406	314
Colorado	37.5	45.0	46.0	46.5	312	290	294
Idaho	60.0	37.5	97.5	85.0	386	324	214
New Mexico	1.2	7.5	3.5	6.0	452	338	502
Oregon	60.0	87.5	80.0	95.0	372	206	262
Utah	27.5	30.0	26.5	23.5	360	258	242
Washington	2,150.0	2,325.0	2,500.0	2,750.0	440	308	280
Total	2,764.7	2,997.5	3,224.0	3,496.5			
United States	4,864.4	5,289.3	5,361.4	5,411.3	358	274	256

1/ In orchards of 100-or-more bearing-age trees. 2/ Includes unharvested production and harvested not sold (1,000 short tons) 1991, 19.3; 1992, 52.1; and 1993, 56.

Sources: National Agricultural Statistics Service and Economic Research Service, USDA.



## Grape Exports Gain, Wine Shipments Slow

*Stable U.S. grape production and strong export demand supported prices for fresh grapes in 1993. Reduced domestic and import shipments reflected lower U.S. wine consumption. A larger 1994 California grape crop will pressure prices and boost consumption.*

### More California Grapes

California is expected to produce 5.5 million short tons of grapes in 1994, up 3 percent from the year before. The forecast for wine-type grapes is 2.4 million tons, up 2 percent, while raisin-type production is pegged at 2.5 million tons, a 4-percent gain from 1993. Output of table-type grapes is expected to be unchanged at 630,000 tons.

The southern California grape harvest was nearly complete by the end of June and Coachella Valley shipping-point prices were mostly above the year earlier in May and June. Shipments of California table grapes usually pick up in July as harvesting in the San Joaquin Valley in central California progresses and remain relatively high through November. July 1994 prices averaged 6 percent lower than the year before.

### Concord Grape Output Down

Grape crop forecasts in other states are down 11 percent from 1993. USDA reports grape production for 12 states, other than California, that typically account for 10 percent of U.S. grape production. About three-fourths of the other states' production is Concord grapes that are used for juice, jams and jellies, and wine. Concord output in 1994 is projected down about 30 percent by the industry. Washington's grape production will drop almost 40 percent following a huge Concord crop in 1993.

New York and Pennsylvania will see increased grape output in 1994 despite subzero winter temperatures in some fruit-growing areas. Native Concord grapes that comprise about 70 percent of New York's and 90 percent of Pennsylvania's grapes are more winter hardy than non-native wine varieties.

Table 3--Grapes: Total production and season-average price received by growers in principal states, 1991-93 and indicated 1994 production

States	Production 1/				Price per short ton		
	1991	1992	1993	1994	1991	1992	1993
	-- 1,000 short tons --				-- Dollars per ton --		
Arizona	25.0	25.0	24.0	26.0	787	500	753
Arkansas	11.0	5.0	8.0	6.0	313	518	499
Georgia	3.2	3.4	3.4	4.0	811	848	822
Michigan	46.0	47.0	55.0	50.0	272	231	253
Missouri	3.1	1.9	2.4	2.7	356	408	376
New York	192.0	180.0	118.0	175.0	254	225	225
North Carolina	2.2	1.3	1.5	1.5	611	780	709
Ohio	9.1	10.3	6.0	7.2	275	265	257
Oregon	9.6	12.3	12.3	13.5	840	790	800
Pennsylvania	78.0	78.0	54.0	70.0	229	198	210
South Carolina	0.7	0.5	0.6	0.7	530	1,070	1,420
Washington	196.0	227.0	354.0	215.0	279	294	254
Total 2/	575.9	591.7	639.2	571.6			
California:							
Wine	2,195	2,145	2,345	2,400	344	393	364
Table	620	645	630	630	438	356	575
Raisin 3/	2,165	2,670	2,410	2,500	247	230	254
All	4,980	5,460	5,385	5,530	314	309	340
United States	5,556	6,052	6,024	6,102	312	306	334

1/ Includes unharvested production and harvested not sold (tons): 1991, 630; 1992, 19,450; and 1993, 8,600. 2/ Some figures may not add due to rounding. 3/ Fresh basis.

Sources: National Agricultural Statistics Service and Economic Research Service, USDA.

## Higher Prices for Fresh Grapes in 1993

Although some preliminary estimates had indicated much lower output, 1993 grape production dropped back less than 1 percent from 1992. The value of U.S. grape production rose nearly 9 percent to more than \$2 billion as strong domestic and export demand for fresh grapes strengthened prices.

Fresh use of all U.S.-produced grapes was 800,400 short tons in 1993, up 4 percent from 1992, and the same as in 1991. About 60 percent of California grapes used fresh were table-type varieties and 35 percent were raisin types that include Thompson Seedless. U.S. grower prices for fresh-market grapes averaged \$678 a ton in 1993, up sharply from \$425 in 1992 and \$549 in 1991. High quality and strong demand contributed to higher fresh grape prices in 1993 and expanding exports will support 1994 prices.

Processing again accounted for 87 percent of the U.S. grape crop in 1993. However, the quantity slipped to 5.22 million tons, from 5.26 million tons in 1992. Most processed grapes are used to make wine, 58 percent in 1993, 32 percent became raisins, and the rest crushed for juice or canned. Grapes used for raisins and juice increased while wine use declined.

Grower prices of all processed grapes averaged \$281 a ton in 1993, compared to \$289 a ton the year before. Strong demand for wine and juice raised prices for processed grapes in 1992 and increased output of higher-valued wine varieties supported prices in 1993. Prices of grapes used for wine averaged \$330 a ton, down only \$1 from 1992, but grapes used for raisins averaged \$217 a ton, off 5 percent. Higher fresh grape prices helped raise the 1993 average grower price for all grapes from \$306 in 1992 to \$334 a ton.

## Grape Imports Off, While Exports Soar

U.S. fresh grape imports totaled 340,500 short tons in 1993/94, off 5 percent from the year earlier. Most grape imports are from Chile and arrive from January through April. Grape imports have declined in 3 of the last 4 years after climbing sharply through the 1980's, but still constitute about 30 percent of U.S. supplies.

The United States exported 227,100 tons of grapes in 1993/94, an 11 percent increase from the year earlier. Exports to Canada rose 7 percent, while exports to Taiwan and Hong Kong dipped. Canada remained the major destination, receiving more than half of U.S. grape exports in 1993/94 and another 15 percent went to Hong Kong or Taiwan. Mexico became the 4th leading market for U.S. grapes in 1993, moving up from 11th place the prior year.

Figure 7

## U.S. Grape Utilization

1,000 short tons

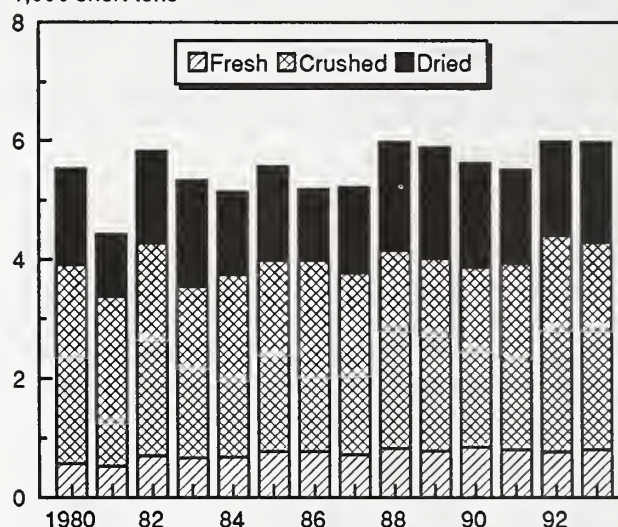


Figure 8

## U.S. Fresh Grape Consumption

Pounds per person

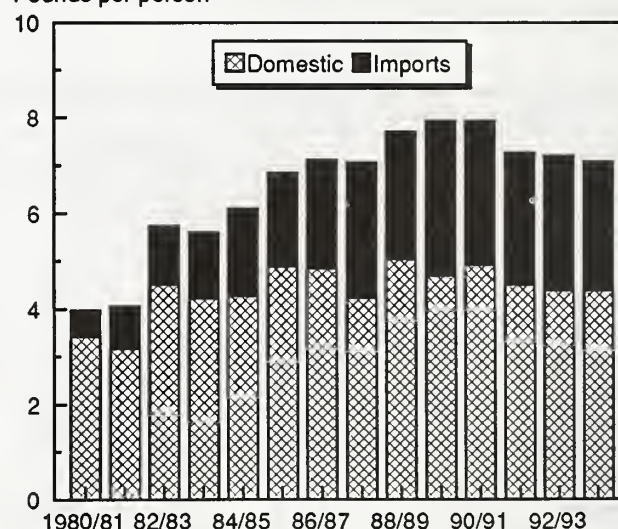


Table 4--U.S. imports of fresh grapes, by country, 1989-93

Country	1989	1990	1991	1992	1993
-- Million pounds --					
Chile	552.0	759.4	633.1	613.0	615.5
Mexico	56.8	57.7	94.6	81.7	91.1
Italy	0.3	0.1	0.2	0.2	0.7
Caribbean	0.0	0.0	2.4	0.2	0.6
Other countries	9.7	6.3	2.7	3.5	0.8
World	618.9	823.5	733.0	698.7	708.7

Source: Bureau of the Census, U.S. Department of Commerce.



## U.S. Wine Production and Consumption Down

According to the Wine Institute, U.S. wine consumption fell 8 percent in 1993, to 1.73 gallons per person, from 1.86 gallons in 1992. Shipments were sluggish the first half of the year due to excessive wholesale and retail inventories. U.S. imports of wine fell 10 percent in 1993 to 52 million gallons after climbing about 15 percent in 1992, the first increase in 7 years. Table wine imports in 1993 dropped off following a late-1992 inventory buildup in anticipation of U.S. trade sanctions against the European Union that were not imposed.

California is the dominant wine-producing state and accounted for 77 percent of the U.S. wine sales in 1993. Wine from other states accounted for 8 percent of the market, and wine imports made up the remaining 15 percent. Other wine-producing states include New York and Washington. Italy and France are major sources of table wine imports. The United States is still a net importer of wine (65 million gallons were imported and 34 million exported in 1993), although wine exports have been on a rising trend and imports falling. After rising nearly 20 percent to 37 million gallons in 1992, U.S. wine

exports declined in 1993, but were still well above the 1989-91 average.

## Raisin Production and Exports

USDA estimated the tonnage of grapes used to make raisins in 1993 was up 6 percent from the prior year, and grower prices declined 4 percent. According to industry reports, total domestic shipments of all raisins were up 10 percent, from 679 million pounds in 1992/93 to 743 million pounds in 1993/94 (August-July). Exports likely declined, but Japan and the United Kingdom remained the main export destinations. Each received 23 percent and Germany 11 percent of U.S. natural seedless raisin exports in 1993/94. U.S. raisin consumption rose to 1.9 pounds per person from 1.6 pounds in 1992/93.

The California Raisin Advisory Board, an industry organization that monitored shipments and provided promotional support to increase U.S. raisin sales, was disbanded July 31, 1994. A petition representing 75 percent of crop tonnage was filed by a group of independent packers calling for termination of the Board. The Board had been in operation 45 years and some type of industry organization is likely to take its place.

Figure 9

### U.S. Wine Consumption

Gallons per person

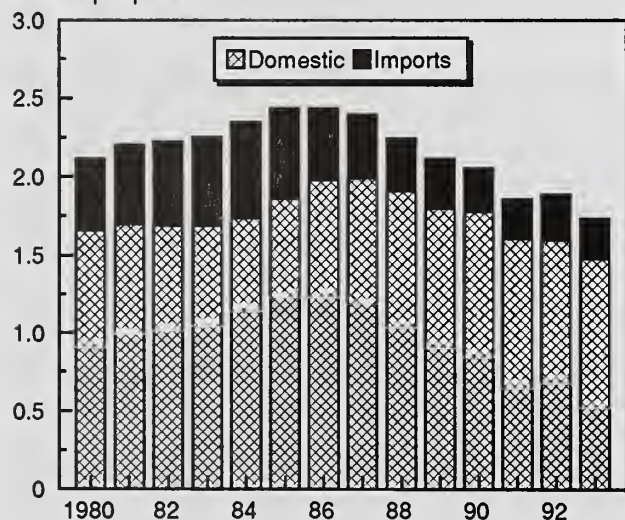
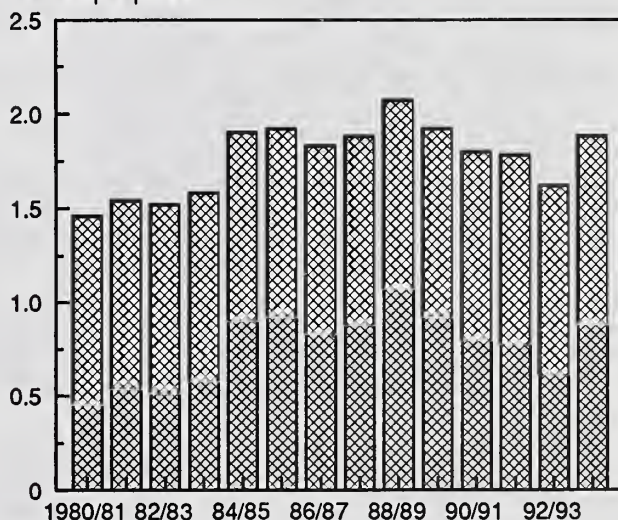


Figure 10

### U.S. Raisin Consumption

Pounds per person



## Pear Production and Exports Grow

*U.S. pear production will increase again in 1994. The forecast for west coast output of Bartlett pears, which are mainly processed, is up 6 percent and other-pear production is unchanged from 1993. Lower prices are expected.*

### Plentiful Pears in 1994

The U.S. pear production forecast for 1994 is 980,000 short tons, up 3 percent from 1993. Pacific Coast production of varieties other-than Bartlett is expected to be 400,000 tons, the same as in 1993. A 3-percent increase in Oregon's output is expected and a 7-percent reduction in Washington's. Typically, at least 85 percent of other-than-Bartlett pears are for fresh use. Increased supplies of apples, as well as pears, indicate even lower prices for

fresh-market pears in 1994. Grower prices for fresh pears averaged about 50 percent below the year earlier from January through July 1994.

Bartlett pear production in California, Oregon, and Washington is expected to total 544,000 tons in 1994, up 6 percent from 1993, but 3 percent less than in 1992. Bartlett pears from these three states usually comprise 60 percent of total U.S. pear production and about 75 percent of Bartletts are processed.

Table 5--Pears: Total production and season-average price received by growers, 1991-93 and indicated 1994 production

State	Production 1/				Price per short ton		
	1991	1992	1993	1994	1991	1992	1993
	-- 1,000 short tons --				-- Dollars --		
California	317.0	338.0	308.0	330.0	263	246	256
Colorado	3.1	4.0	5.0	5.5	298	284	348
Connecticut	1.2	1.3	1.3	1.3	600	650	600
Michigan	5.0	6.0	5.5	5.0	273	236	225
New York	14.5	18.5	16.0	17.5	275	308	259
Oregon	220.0	214.0	223.0	239.0	301	312	222
Pennsylvania	4.6	5.5	6.0	5.0	418	402	350
Utah	2.2	1.8	1.4	1.7	440	400	400
Washington	336.0	337.0	383.0	375.0	341	332	245
United States	903.6	926.1	949.2	980.0	303	296	245
Pacific Coast:							
California--							
Bartlett	300.0	315.0	288.0	300.0	252	238	237
Other	17.0	23.0	20.0	30.0	458	356	528
Total	317.0	338.0	308.0	330.0	263	246	256
Oregon--							
Bartlett	70.0	74.0	63.0	74.0	272	265	260
Other	150.0	140.0	160.0	165.0	314	337	207
Total	220.0	214.0	223.0	239.0	301	312	222
Washington--							
Bartlett	160.0	170.0	163.0	170.0	270	272	269
Other	176.0	167.0	220.0	205.0	405	393	227
Total	336.0	337.0	383.0	375.0	341	332	245
3 States 2/--							
Bartlett	530.0	559.0	514.0	544.0	260	252	250
Other	343.0	330.0	400.0	400.0	368	367	234
Total	873.0	889.0	914.0	944.0			

1/ Includes unharvested production and harvested not sold (tons): 1991, 150; 1992, 1,950; and 1993, 1,350. 2/ Separate data by type not available for other states.

Sources: National Agricultural Statistics Service and Economic Research Service, USDA.



## Pear Prices Pressured

Grower prices for all fresh-market pears fell as the proportion of fresh use increased to 54 percent of the 1993 U.S. pear crop and the quantity rose 14 percent to 508,700 tons. The 1993/94 season-average price was \$280 a ton for all fresh pears, down from \$378 the year before. Production of other-than-Bartlett pears increased 21 percent in 1993 and 88 percent were used fresh. Average grower prices for fresh-market, other-than-Bartlett pears averaged \$260 a ton in 1993/94, down 36 percent from 1992/93.

Processing accounted for a smaller portion of the 1993 pear crop and the quantity processed dropped 8 percent to 439,100 tons. However, demand for canning pears was weak and processing prices for California, Oregon, and Washington Bartletts dropped 4 percent to \$225 a ton in 1993 from \$234 the 2 prior years. Grower prices for processing pears will likely stay down, given the crop forecast and abundant processor stocks. The Washington-Oregon Canning Pear Association reported the 1994 price for No. 1 Bartletts at \$210 a ton, down from \$220 in 1993 and \$230 in 1992.

## Pear Imports and Exports Rise

From July 1993 through June 1994, the United States imported 72,400 short tons, of which 70 percent were from Chile. U.S. fresh pear imports from all countries were up 1 percent from the same period in 1992/93.

A large U.S. pear crop, low prices, and the North American Free Trade Agreement (NAFTA) helped boost exports. NAFTA went into effect January 1, 1994, and dropped Mexico's tariff on U.S. pears from 15 to 12 percent. Exports of U.S. pears to Mexico from January through June 1994 outpaced the same months of 1993 by 83 percent. U.S. pear exports to all countries were up 45 percent, with Mexico accounting for the bulk of the gain.

Pear exports accelerated after NAFTA took effect, but had been relatively high since the beginning of the marketing season. From July 1993 through June 1994, pear exports to Mexico totaled 59,115 tons, up 57 percent from the year earlier. Exports to Canada rose 14 percent, to 43,700 tons during the same period. U.S. pear exports to the world increased 28 percent in 1993/94.

Mexico became an increasingly important market for U.S. pears as the Mexican pear industry declined. Reduced domestic production and elimination of import licensing, after Mexico joined the General Agreement on Tariffs and Trade (GATT), helped raise U.S. pear exports to Mexico from less than 4,000 tons in 1988 to 42,600 tons in 1993.

Figure 11

## U.S. Grower Prices for Fresh Pears

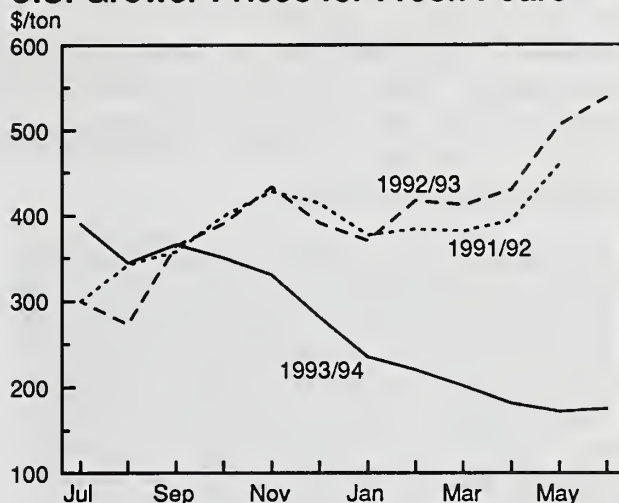
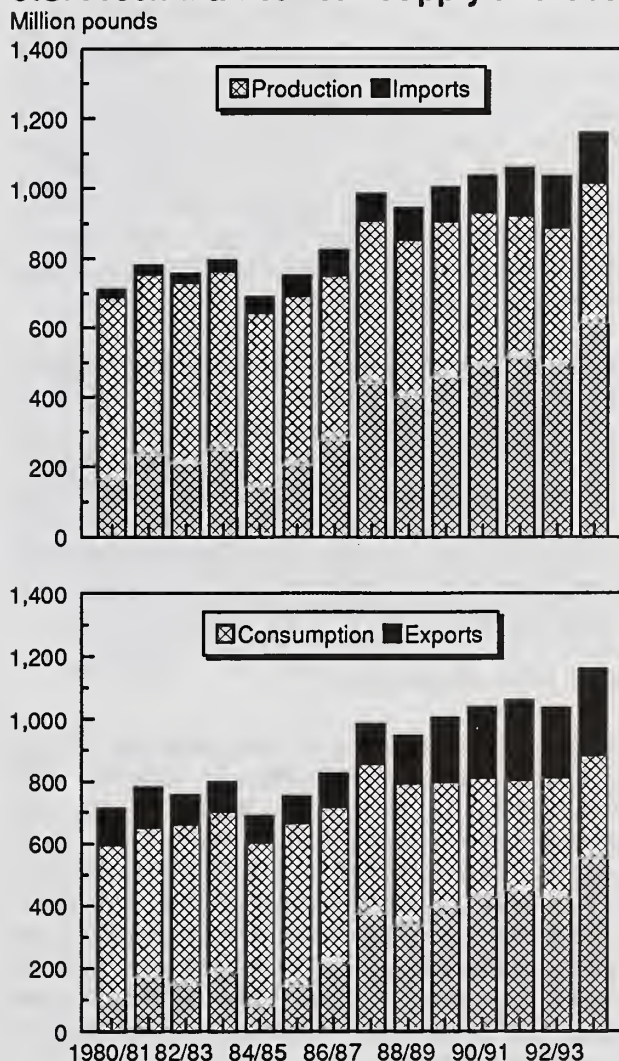


Figure 12

## U.S. Fresh-Market Pear Supply and Use





## California Stone Fruit Output Rises, Other States' Falls

*Hard winter freezes in many states damaged peach and cherry trees, and smaller 1994 crops are forecast. Rain damage to California's 1994 tree fruit crops was minimal, compared to the spring of 1993, and output of apricots, plums, and prunes rose sharply.*

### Cold Winter Damages Peaches

Peach production in California, Georgia, and South Carolina is expected to be up in 1994, but in many other states peach output was reduced by the harsh winter. The U.S. peach crop forecast is 1.23 million short tons, 7 percent less than the 1993 and 1992 crops. The forecast includes 680,000 tons of freestone peaches, a 13-percent smaller crop than in 1993. About 75 percent of freestone peaches are used fresh, while California clingstones that make up the rest of the U.S. peach crop are mostly canned. USDA expects California's 1994 clingstone crop to be about the same as in 1993.

The extremely cold 1993/94 winter damaged peach trees and/or buds in nearly all areas except the deep south and west. USDA expects no commercial peach production this summer in Pennsylvania, Indiana, Ohio, West Virginia, or Kentucky. Output will be down markedly in 16 states, including Michigan, Illinois, Virginia, Arkansas, and New Jersey. However, 1994 peach production in Alabama, Louisiana, Oklahoma, Oregon, Colorado, and Utah will surpass 1993 as well as in California, Georgia, and South Carolina, the leading producers.

The California freestone peach forecast is 310,000 tons, up 2 percent from 1993, and accounting for nearly half of U.S. production. About 65 percent of California freestones usually go to the fresh market. Peaches in Georgia and South Carolina mostly avoided damage from winter cold snaps and spring frosts. The 125,000-ton South Carolina peach crop forecast is up 14 percent from 1993. Georgia's peach crop forecast of 82,500 tons is 10 percent larger than 1993.

### Peach Prices Mostly Down

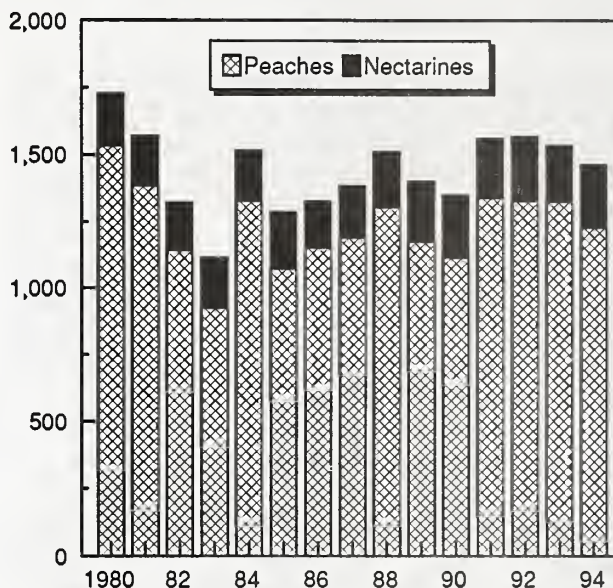
Georgia's peach harvest began in late April, about 2 weeks earlier than usual, and California's in mid-May. The South Carolina harvest was also ahead of last year with one-third of the peaches picked by July 1, 1994. At the same time, Georgia was 80 percent complete and half of the California freestone crop was harvested. Heavy early shipments brought prices down. USDA's grower prices for fresh-market peaches in May and June 1994 were less than the year earlier. Reduced marketings from the mid-Atlantic and Great Lakes areas may support prices in August and September.

Gross returns to growers for processing peaches will be significantly lower in 1994. The California Canning Peach

Figure 13

### U.S. Peach and Nectarine Production

1,000 short tons



Association announced a sliding scale of \$185 to \$218 a ton for the 1994 crop, down from \$197 to \$230 the prior year.

### California's Apricot and Plum Crops Rebound

Rain damage to California's 1994 tree fruit crops was minimal compared to the spring of 1993. Production of apricots, plums, and prunes rose sharply with more fresh-market quality fruit. The apricot crop rebounded to 130,000 short tons, up 48 percent from 1993 and 28 percent more than the 1990-92 average. Harvest began the first week of May and was finished by the end of June. F.o.b. prices for apricots from the San Joaquin Valley averaged 24 percent lower than the year earlier.

California's 1994 plum crop will be larger than a year ago and USDA projected 45 percent more dried prune production. Overall, California growers report a good plum crop with few defects and anticipate a 50-percent increase of plum shipments. California's 1993 plum output was down about 25 percent from the prior year and prune output fell by about one-third (dried basis). California plum prices more than doubled in 1993, but prices for Red Beauty plums in May and June 1994 dropped back 40 percent from the year earlier.



California plum producers approved a referendum to establish a state marketing order effective for the 1994 season. Activities to be funded by producer assessments include generic advertising, sales promotion, research, the establishment of quality standards, and mandatory inspection. Inspections were voluntary during the 1992 and 1993 seasons. A special article in this report examines the economic effects of previous Federal plum marketing orders with mandatory inspections to enforce quality standards.

#### Limited Washington Sweet Cherries

Total 1994 sweet cherry production is expected to be about the same as in 1993, with increased output from California and Oregon balancing reductions in Washington and Michigan. The U.S. sweet cherry crop forecast is 168,200 short tons, down less than 1 percent from the year earlier. Wet spring weather in California, Washington, and Oregon lowered 1993 sweet cherry output and U.S. production dropped 16 percent from the above-average 1992 crop.

California's sweet cherry crop forecast was 32,000 tons, 68 percent larger than the rain-damaged 1993 crop. Bing cherries (usually over 90 percent of California's crop) were mostly picked in May, rain and hail damage was minimal, and f.o.b prices were down 10 percent from the prior year. Oregon's sweet cherry output is expected to be 38,000 tons, up 12 percent from 1993, despite rain and hail damage in the Milton-Freewater area.

In Washington, the leading sweet-cherry-producing state, a 16-percent smaller crop of 67,000 tons is anticipated. Frost damage to buds, a lighter fruit set, and early fruit splitting reduced the cherry crop in the lower Yakima Valley and Bing prices the end of June were higher than the year earlier.

The sweet cherry crop forecast for Michigan is 25,000 tons, down 17 percent from a large 1993 crop. Michigan's fruit growing region had 20-degree-below-zero temperatures during the 1993/94 winter, which did

substantial damage to cherry buds and spring pollination was only fair. Nationally, the sweet cherry crop is nearly evenly divided between fresh and processed uses, but most of Michigan's sweet and tart cherry production is used for processing.

#### Tight Tart Cherry Supply

Michigan tart cherry output will drop sharply in 1994, but remain above the 1989-93 average. Some tart cherry trees were killed or severely damaged by hard winter freezes and there was spring frost damage in some areas. The 92,500-ton Michigan crop accounts for 72 percent of the 1994 U.S. tart cherry crop forecast. Total U.S. output is forecast down 21 percent from 1993. A smaller Michigan crop implies continued tight frozen cherry supplies.

In 1993, U.S. utilized production of tart cherries was off 18 percent with a 9-percent decline of processed use in Michigan due to quality problems, as well as reduced output in New York and Utah. USDA reported frozen tart cherry stocks, as of June 30, 1994, down 35 percent from the year earlier.

Figure 14

#### U.S. Cherry Production

1,000 short tons

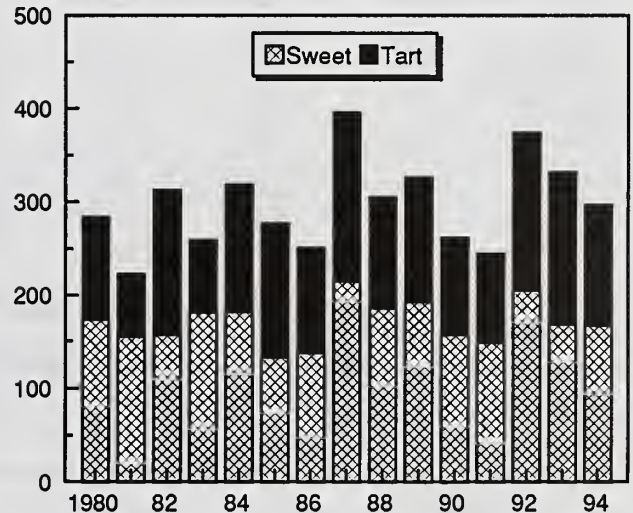


Table 6--Peaches: Total production and season-average price received by growers, 1991-93 and indicated 1994 production

State	Production				Price per short ton		
	1991	1992	1993	1994	1991	1992	1993
	-- 1,000 short tons --				-- Dollars --		
Alabama	8.0	6.5	7.5	8.5	426	626	658
Arkansas	6.0	6.0	12.0	5.0	500	442	280
California:	828.5	912.5	851.0	860.0			
Clingstone	515.0	591.5	548.5	550.0	218	216	218
Freestone	313.5	321.0	302.5	310.0	264	248	298
Colorado	1.0	9.0	9.0	9.5	760	666	622
Connecticut	1.7	2.0	1.8	1.1	1,020	1,000	1,040
Delaware	1.5	1.8	2.0	1.5	570	394	480
Georgia	75.0	65.0	75.0	82.5	482	452	450
Idaho	1/	2.7	3.5	2.0	1/	560	484
Illinois	9.8	9.0	8.0	2.5	660	552	598
Indiana	2.3	3.0	4.0	1/	792	886	706
Kansas	1.3	0.3	0.3	0.3	740	846	760
Kentucky	2.0	2.0	3.0	1/	700	580	600
Louisiana	2.5	2.0	1.8	2.0	720	900	960
Maryland	7.5	5.5	5.0	1.5	484	570	510
Massachusetts	0.9	0.9	0.9	0.4	1,020	1,100	1,040
Michigan	20.0	25.0	24.0	5.0	348	338	376
Missouri	5.5	4.5	3.8	3.3	460	540	480
New Jersey	57.5	42.5	45.0	37.5	506	638	596
New York	7.5	7.0	4.5	3.5	548	524	592
North Carolina	17.5	6.0	17.5	16.0	352	392	402
Ohio	2.9	7.0	3.9	1/	800	760	710
Oklahoma	15.5	2.5	10.0	12.5	610	912	704
Oregon	6.5	7.5	7.0	7.5	712	644	482
Pennsylvania	50.0	45.0	50.0	1/	402	446	420
South Carolina	155.0	85.0	110.0	125.0	354	416	334
Tennessee	3.3	2.1	5.2	1.3	600	708	760
Texas	16.0	13.5	12.5	10.0	680	740	720
Utah	1.3	5.4	3.9	5.5	680	440	480
Virginia	13.0	12.5	14.0	5.0	382	336	320
Washington	15.0	26.0	23.5	21.5	424	412	432
West Virginia	9.0	10.0	9.0	1/	286	310	294
United States	1,343.3	1,329.5	1,328.3	1,230.4	314	306	320

1/ No significant commercial production due to frost.

Sources: National Agricultural Statistics Service and Economic Research Service, USDA.

Table 7--Apricots and nectarines: Total production and season-average price received by growers, 1990-93 and indicated 1994 production

Item	Production					Price per short ton			
	1990	1991	1992	1993	1994	1990	1991	1992	1993
	-- 1,000 short tons --					-- Dollars --			
Apricots--									
California	115.0	90.0	99.0	88.0	130.0	323	374	328	364
Utah	0.3	0.1	0.6	0.3	0.5	460	820	620	525
Washington	7.2	5.7	6.8	8.1	7.3	596	895	746	775
United States	122.5	95.8	106.4	96.4	137.8	340	407	356	399
Nectarines--									
California	232	215	236	205	N.A.	474	402	312	500

N.A. = Not available.

Source: National Agricultural Statistics Service, USDA.



Table 8--Cherries, sweet: Total production and season-average price received by growers, 1991-93 and indicated 1994 production

States	Production 1/				Price per short ton		
	1991	1992	1993	1994	1991	1992	1993
	-- 1,000 short tons --				-- Dollars --		
California	36.0	31.0	19.0	32.0	957	1,230	2,270
Idaho	0.4	1.2	1.5	1.2	508	975	754
Michigan	21.0	18.0	30.0	25.0	671	689	693
Montana	2/	0.8	0.9	0.8	2/	988	1,590
New York	1.3	1.1	0.7	0.9	901	976	850
Oregon	40.0	52.0	34.0	38.0	871	868	893
Pennsylvania	1.1	1.1	1.2	1.0	1,530	1,740	1,420
Utah	0.8	3.2	1.3	2.4	875	647	967
Washington	50.0	97.0	80.0	67.0	1,200	871	1,240
United States	150.6	205.4	168.6	168.2	968	915	1,190

1/ Includes unharvested production and harvested not sold (1,000 short tons): 1991, 8.2; 1992, 11.0; and 1993, 4.0. 2/ No commercial production due to frost.

Source: National Agricultural Statistics Service, USDA.

Table 9--Cherries, tart: Total production and season-average price received by growers, 1991-93 and indicated 1994 production

States	Production 1/				Price per short ton		
	1991	1992	1993	1994	1991	1992	1993
	-- 1,000 short tons --				-- Dollars --		
Colorado	0.8	0.8	0.8	0.7	828	730	498
Michigan	55.0	122.5	135.0	92.5	962	350	210
New York	12.8	15.5	7.9	11.5	900	364	206
Oregon	3.8	4.8	1.5	3.8	590	502	304
Pennsylvania	5.8	3.0	5.8	4.0	964	548	362
Utah	13.0	16.5	7.5	12.5	892	280	194
Wisconsin	3.9	4.6	3.3	3.5	978	300	196
United States	95.0	167.6	161.7	128.4	928	352	216

1/ Includes unharvested production and harvested not sold (1,000 short tons): 1991, 0.1; 1992, 11.1; and 1993, 30.9.

Sources: National Agricultural Statistics Service and Economic Research Service, USDA.

Table 10--Plums and prunes: Production and season-average price received by growers in principal states, 1991-93 and Indicated 1994

State	Total production				Price per short ton		
	1991	1992	1993	1994	1991	1992	1993
	-- 1,000 short tons --				-- Dollars --		
California:							
Plums	218.0	250.0	185.0	N.A.	449	252	508
Prunes (fresh basis)	589.0	534.0	375.0	533.1	298	355	374
Total California	807.0	784.0	560.0	533.1			
Prunes and plums 1/:							
Idaho	3.0	4.6	7.0	5.0	383	265	162
Michigan	8.0	9.0	7.0	8.0	306	263	244
Oregon	4.0	20.0	4.5	18.0	228	160	166
Washington	9.1	11.0	9.7	9.0	253	162	169
Total 4 states	24.1	44.6	28.2	40.0	283	192	188
United States	831.1	828.6	588.2				

N.A. = Not available.

1/ Includes unharvested production and harvested not sold (1,000 short tons): 1991, .3; 1992, .2; and 1993, 2.3.

Sources: National Agricultural Statistics Service and Economic Research Service, USDA.

## Kiwifruit Consumption Climbs

*California kiwifruit shipments were up sharply in 1993 due to a record 1992 crop. Kiwifruit imports from Chile to the United States rose and consumption set a new record. Fewer California kiwi were marketed in 1994.*

### Record Kiwi Shipments in 1993

The U.S. supply of kiwifruit was record high in 1993 and consumption exceeded a half pound per person for the first time. Imports of kiwifruit rose 24 percent in 1993 and California shipments climbed 82 percent as the large crop harvested in 1992 was marketed. California kiwifruit is harvested in October and November and marketed through the following May. June to October is California's off-season, when most Southern Hemisphere shipments are available.

Chile replaced New Zealand as the main source of kiwi imports in 1992 after the United States imposed anti-dumping duties on New Zealand. In 1993, U.S. kiwi imports from Chile rose 58 percent while imports from New Zealand dropped 36 percent. The United States is a net importer of kiwifruit. Italy, New Zealand, and Chile all produce and export more than the United States. The United States is Chile's major export market for kiwi and Chile supplied 78 percent of U.S. kiwifruit imports in 1993.

Exports of U.S. kiwifruit declined from 1989 through 1992 in the face of rising production and exports from Italy and France. However, the large 1992 California crop and lower prices boosted kiwifruit exports in 1993.

### California Kiwifruit Output Subsidies

California produced 98.4 million pounds of kiwifruit in fall of 1993, 6 percent less than the record-large 1992 output. Low prices following the 1992 harvest encouraged growers to pull vines, so bearing acreage was lower in 1993. The smaller crop brought average grower prices up to 18.5 cents a pound from 14.5 in 1992/93 and the value of production rose 19 percent to \$16.5 million.

The California Kiwifruit Commission reported total 1993/94 shipments down 8 percent from 1992/93. However, kiwifruit exports were up 13 percent as domestic shipments declined. Exports to Canada gained, but shipments to Taiwan and Japan were down. Canada, Taiwan, and Korea were the major markets for U.S. kiwifruit exports in 1993/94. Mexico became the fourth leading market with a near doubling of U.S. kiwi imports from the prior season.

Table 11--Kiwifruit, fresh: Supply and utilization, 1985-93

Year	Shipments 1/	Imports	Exports	Consumption	
				Total	Per capita
					Pounds
					-- Million pounds --
1985	31.1	17.7	15.4	33.4	0.14
1986	33.0	18.0	15.4	35.6	.15
1987	45.3	38.9	23.6	60.6	.25
1988	54.5	31.9	25.7	60.7	.25
1989	59.7	43.5	22.2	81.0	.33
1990	69.9	73.7	21.3	122.3	.49
1991	63.5	63.9	16.7	110.7	.44
1992	56.3	44.6	15.6	85.3	.33
1993	102.3	59.0	19.6	141.7	.55

1/ Monthly shipments from the California Kiwifruit Commission.

Table 12--U.S. imports of fresh kiwifruit, by country, 1989-93

Country	1989	1990	1991	1992	1993
					-- 1,000 pounds --
Chile	2,295	1,382	6,828	27,141	42,871
New Zealand	41,233	72,168	56,533	16,435	10,542
Italy	0	148	505	1,036	1,863
Other countries	0	0	71	0	2
World	43,528	73,698	63,936	44,613	55,279

Source: Bureau of the Census, U.S. Department of Commerce.

Table 13--Kiwifruit: Acreage, production, season-average grower prices, and value, California, 1985-93

Year	Bearing acreage	Total production	Prices	Value
	1,000 acres	Million lbs.	Cents/lb.	1,000 dollars
1985	4.8	44.0	40.7	16,667
1986	5.6	48.6	51.5	24,102
1987	6.8	58.0	35.5	18,886
1988	7.1	65.4	38.0	22,420
1989	7.2	80.0	20.0	14,800
1990	7.3	78.0	20.8	14,110
1991	7.3	59.2	41.0	21,976
1992	7.3	104.6	14.5	13,833
1993	7.1	98.4	18.5	16,502

Source: National Agricultural Statistics Service, USDA.



## California Olive Output Off

*The 1994 California olive crop is expected to be smaller than the previous two. Despite the substantial 1993 crop, olive imports were up 11 percent, and ending inventories were relatively high.*

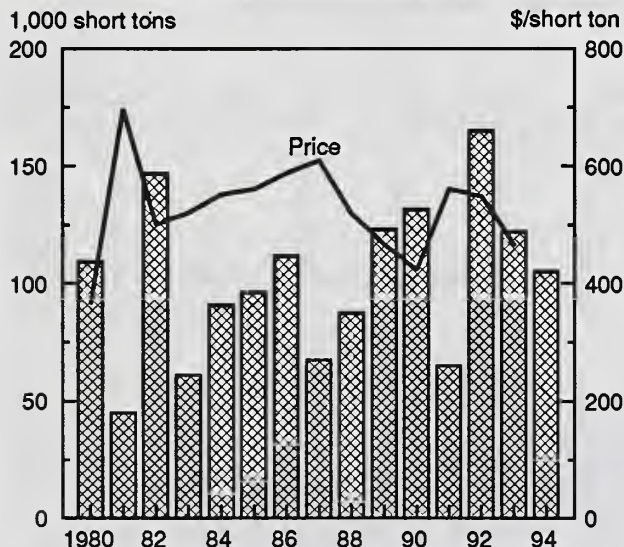
### Olive Production for 1994 Forecast Down

California olive production is expected to total 105,000 short tons in 1994, down 14 percent from 1993. Trees had good growth and were in excellent shape following two relatively large crops. Olive harvest will begin in mid-September. Manzanillo varieties had a heavy bloom, but Sevillano is expected to be half of the 1993 crop. The smaller crop forecast is not likely to raise olive prices markedly since they are determined more by inventory size than the current crop outlook.

A very large 1992 crop left packed-olive inventories 18 percent higher at the beginning of the 1993/94 season, and the grower price fell. The average grower price for olives was \$467 per ton in 1993, down sharply from \$555 in 1992. A relatively high beginning inventory again this year will dampen price increases for the 1994 crop.

Figure 15

### California Olive Production and Price



### Olive Sales Up in 1993/94

Data from the California Olive Committee for the 12 months ending June 30, 1994, indicated that packed olive sales were up 7 percent from the same time a year earlier. Total sales for all styles of packed olives reached 15.3 million cases of 24 300-size cans. Sales of whole olives dropped 40 percent, while the most popular pitted styles rose 6 percent and sliced sales jumped 18 percent from the year earlier.

The packed-olive inventory on June 30, 1994, was estimated at 9.2 million cases, 8 percent higher than in 1993. The smaller 1993 crop and brisk sales led to an 11-percent increase in black olive imports. For the 12-months ending June 30, 1994, the United States imported 3.8 million cases, up from 3.4 million in 1992/93. Spain continued to be the source of nearly 90 percent of U.S. olive imports.

Table 14--California olives: Production and utilization, 1983/84-1993/94

Crop year	Utilized production		Processed utilization		
	Fresh	Processed	Canned 1/	Crushed	Other 2/
-- 1,000 short tons --					
1983/84	0.4	60.6	51.6	4.1	4.9
1984/85	0.4	90.2	82.4	2.9	4.9
1985/86	0.5	95.5	84.5	5.8	5.2
1986/87	0.5	111.0	96.9	6.0	8.1
1987/88	0.5	67.0	60.5	3.0	3.5
1988/89	0.5	87.0	78.5	3.0	5.5
1989/90	0.5	122.5	108.0	5.5	9.0
1990/91	0.5	131.0	110.0	5.0	16.0
1991/92	0.5	64.5	61.0	1.8	1.7
1992/93	0.5	164.5	152.5	5.7	6.3
1993/94	0.5	121.5	112.7	5.3	3.5

1/ Includes canning and limited size. 2/ Includes undersize and culls.

Sources: National Agricultural Statistics Service, USDA and the California Olive Committee.

## Strawberry Production Dips

*Slight setbacks in Florida and California brought U.S. strawberry production down 1 percent in 1993/94. Record-high output the prior year left ample supplies of frozen berries for domestic and export use.*

Harvested strawberry area in California is expected to decline 7 percent to 23,300 acres in 1994. However, higher yields per acre will keep production within 2 percent of the record-large 1993 crop. Winter strawberry acreage in Florida rose to 5,700 acres, up 10 percent from 1993, but yields per acre fell and production dipped 1 percent.

Florida strawberry shipments began in November 1993, peaked in March 1994, and finished in April 1994. California harvests and ships strawberries year round, with April and May the peak shipping months. Oregon's strawberry crop, which was mostly harvested in June and frozen, was up 18 percent from 1993.

### Ample Frozen Strawberry Stocks

Stocks of frozen strawberries were high at the beginning of the year and have remained above the year earlier. Nearly 30 percent of California's large strawberry crop

was frozen in 1993 and the total U.S. frozen pack was a record 206,000 tons, up 34 percent from the prior year. As of December 31, 1993, frozen strawberry stocks were up 23 percent from the year earlier.

Movement was high during the winter and supplies of frozen strawberries declined seasonally before rising as the 1994 summer crop was picked. USDA reported 171,143 tons of frozen strawberries in cold storage at the end of June, 12 percent higher than in 1993 and up 19 percent from 1990-92.

Total deliveries to freezers between April and August 1994 were down less than 1 percent, with California deliveries 2 percent behind last year and Oregon deliveries up 17 percent. California typically provides more freezer berries throughout the year than Oregon (82 and 14 percent, respectively, of 1993 deliveries). California deliveries lagged the year earlier in April and May, but picked up in June after fresh prices declined. Processing prices will be pressured by continuing high stocks.

Table 15--U.S. shipments of fresh strawberries, by source, 1988-94

Source/year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
-- 1,000 short tons --													
<b>California</b>													
1988	1	9	38	81	73	50	34	24	15	10	3	0	337
1989	1	4	20	88	89	40	33	28	16	9	3	2	333
1990	5	8	18	75	86	50	42	29	17	12	6	3	350
1991	1	7	17	82	86	67	48	34	29	19	6	2	398
1992	3	8	26	94	88	51	43	25	24	17	3	1	382
1993	2	6	31	75	79	62	47	35	33	16	23	1	407
1994	9	10	40	82	82	80							
<b>Florida</b>													
1988	5	3	12	5	1	0	0	0	0	0	0	2	27
1989	5	4	16	1	0	0	0	0	0	0	0	2	29
1990	2	7	11	2	0	0	0	0	0	0	0	4	26
1991	5	6	12	2	0	0	0	0	0	0	0	3	27
1992	4	8	13	4	0	0	0	0	0	0	0	2	32
1993	5	4	12	4	1	0	0	0	0	0	0	2	29
1994	3	6	17	2	0								
<b>Mexico</b>													
1988	1	2	5	4	3	2	0	0	0	0	1	1	18
1989	2	2	3	3	2	1	0	0	0	0	0	1	15
1990	2	1	3	4	2	1	0	0	0	0	1	1	14
1991	2	3	2	3	2	2	0	0	0	0	1	1	15
1992	1	1	3	2	1	0	0	0	0	0	0	1	10
1993	1	1	5	3	2	1	0	0	0	0	0	1	14
1994	2	2	6	6	3	3							
<b>Total</b>													
1988	7	14	54	89	76	52	34	24	15	10	3	4	383
1989	8	10	40	93	91	41	33	28	16	9	4	4	377
1990	8	16	31	82	88	51	42	29	17	13	7	8	390
1991	8	16	31	86	88	69	48	34	29	19	7	6	439
1992	8	18	42	100	89	52	43	25	24	17	3	4	424
1993	8	11	48	81	83	63	47	35	33	16	23	3	450
1994	13	18	63	90	84	82							

Sources: Agricultural Marketing Service and Economic Research Service, USDA.



Table 16--Strawberries: Production, major states, 1991-94

State	1991	1992	1993	1994
-- 1,000 short tons --				
<b>Early:</b>				
Florida	66.0	70.5	68.9	68.4
<b>Late:</b>				
California	548.6	516.0	568.8	559.2
Michigan	6.5	6.6	5.7	5.3
New Jersey	1.0	1.3	0.9	0.7
Oregon	30.8	30.5	31.0	36.6
Washington	4.2	5.6	5.6	5.6
Group total	591.2	560.0	612.0	607.4
<b>Total</b>	<b>657.2</b>	<b>630.5</b>	<b>680.9</b>	<b>675.8</b>

Sources: National Agricultural Statistics Service and Economic Research Service, USDA.

Figure 16

**U.S. Fresh Strawberries: Grower Prices**

\$/lb.

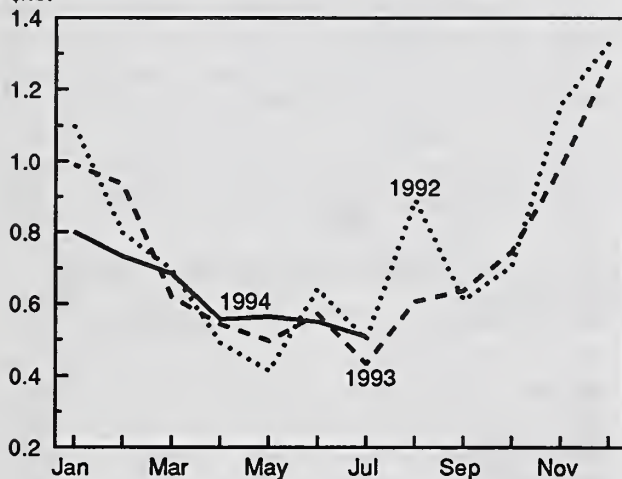


Figure 17

**U.S. Strawberry Consumption**

Pounds per person

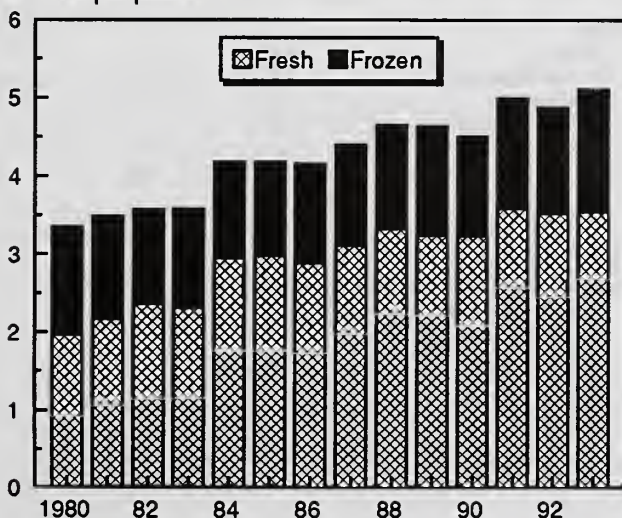


Table 17--Stocks of frozen fruits, selected months, 1990-94

Fruit/date	1990	1991	1992	1993	1994 1/
--1,000 pounds--					
<b>Apples</b>					
January 31	74,009	88,322	93,061	89,116	92,762
April 30	87,957	100,882	99,072	96,918	103,281
July 31	61,722	79,306	70,808	75,088	71,484
October 31	48,601	76,368	66,663	61,223	
<b>Apricots</b>					
January 31	7,417	6,466	5,970	8,746	11,906
April 30	4,811	3,777	2,786	4,865	8,785
July 31	13,621	12,185	14,503	16,563	21,545
October 31	10,205	9,136	12,003	15,364	
<b>Blackberries</b>					
January 31	13,495	13,424	10,059	23,271	17,001
April 30	10,121	8,705	8,130	16,425	11,197
July 31	17,335	9,549	24,281	27,671	28,095
October 31	18,580	12,349	25,531	22,124	
<b>Blueberries</b>					
January 31	64,227	64,705	60,711	69,058	91,786
April 30	42,893	42,313	37,559	45,550	68,310
July 31	30,923	42,608	38,309	34,798	52,170
October 31	90,636	83,623	91,789	105,609	
<b>Boysenberries</b>					
January 31	2,611	3,396	1,954	3,658	3,673
April 30	2,431	2,602	1,376	2,771	2,440
July 31	7,652	6,066	5,655	5,987	7,184
October 31	5,245	3,715	4,068	4,687	
<b>Cherries, tart 2/</b>					
January 31	119,016	62,063	49,082	111,940	110,145
April 30	78,162	34,461	27,497	76,672	67,373
July 31	136,580	93,731	6,048	109,503	151,183
October 31	107,365	77,346	155,847	135,689	
<b>Cherries, sweet</b>					
January 31	19,231	13,087	8,005	10,288	9,737
April 30	16,518	9,437	5,543	9,388	8,225
July 31	15,298	15,577	14,905	14,374	16,777
October 31	13,729	12,082	13,553	11,245	
<b>Grapes</b>					
January 31	5,744	4,393	3,357	3,245	6,389
April 30	4,555	3,180	1,702	2,624	5,405
July 31	3,452	1,886	1,552	2,393	2,941
October 31	6,537	5,649	4,697	4,718	
<b>Peaches</b>					
January 31	78,978	95,377	75,917	68,533	99,651
April 30	53,951	70,562	51,674	44,575	82,372
July 31	41,185	47,269	52,833	39,673	40,083
October 31	116,897	103,321	93,305	113,951	
<b>Raspberries, red</b>					
January 31	33,597	32,088	25,933	31,392	33,271
April 30	23,007	20,822	15,322	16,932	18,999
July 31	50,786	47,736	58,165	60,015	75,560
October 31	43,761	37,352	44,867	44,811	
<b>Strawberries</b>					
January 31	142,684	174,944	189,833	161,032	214,058
April 30	146,703	151,244	162,747	147,092	148,885
July 31	311,369	329,967	285,233	310,166	350,855
October 31	247,991	267,351	223,761	270,933	

1/ Preliminary.

2/ Includes juice cherries.

Source: National Agricultural Statistics Service, USDA.

## Blueberry Production Shrinks

*Winter damage reduced the U.S. cultivated blueberry crop and Maine's wild blueberry output is also expected to be down. U.S. blueberry production will fall 15 percent in 1994, but large frozen stocks will dampen price gains.*

North Carolina's blueberry crop was down 33 percent in 1994 due to frost and freeze damage. However, f.o.b. prices for North Carolina blueberries shipped between mid-May and mid-July were down 2 percent from the year before. Prices were highest in April for Florida shipments. An average New Jersey blueberry crop of 17,500 tons is anticipated in 1994. Shipments of fresh blueberries from New Jersey are mostly between mid-June and mid-August and prices were up slightly through mid-July compared to 1993.

### Processing Blueberries Scarce

Michigan blueberry growers anticipate a freeze-reduced 1994 crop. Processors expect Michigan's blueberry output to be down 40-50 percent from 1993. USDA estimated 1993 production at 43,500 tons, with 78 percent processed. Maine's wild blueberry output is expected to dip from 35,000 tons in 1993 to 30,000 tons in 1994. Winter damage and a dry summer contributed to the decline. Reduced production in Michigan, Maine, and the Canadian Provinces points toward some recovery of the weak 1993 blueberry prices, but frozen stocks are record high.

USDA reported about 20,600 tons of frozen blueberries in U.S. cold storage facilities on June 30, 1994, a 36-percent increase from the year earlier. The North American Blueberry Council projected record-high stocks of frozen blueberries for the second year in a row. Combined U.S. and Canadian 1994 frozen blueberry carryin was estimated 27 percent higher than the year earlier.

### Bumper Blueberry Crop in 1993

U.S. cultivated blueberry production was up 45 percent in 1993 from the prior year, and although prices averaged 35 percent lower, the value of production rose 1 percent to \$94 million. Production in Michigan and New Jersey was back up after spring freezes reduced 1992 output. A much larger cultivated crop, coupled with a 23-percent reduction in Maine's wild blueberry output, raised total U.S. blueberry production to a record 115,800 short tons in 1993.

Figure 18

### U.S. Blueberry F.O.B. Prices

\$/pound

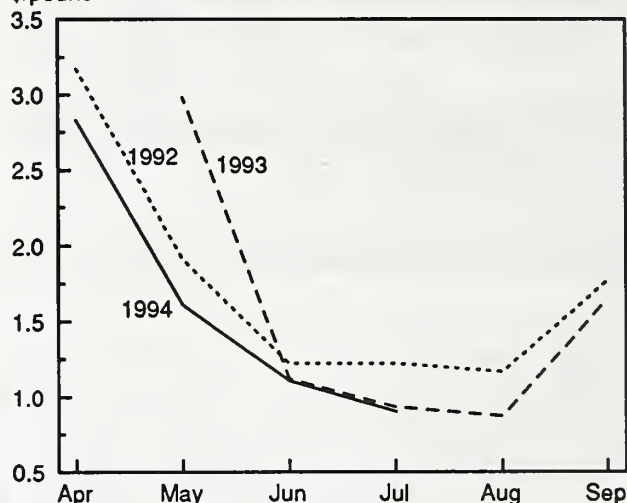


Table 18--North American blueberry production, 1992-94

State or province	1992	1993	1994 1/
-- 1,000 short tons --			
<b>Cultivated:</b>			
Michigan	18.3	42.6	23.5
New Jersey	12.0	17.5	17.5
British Columbia	15.1	9.2	11.5
North Carolina	5.3	7.5	5.0
Washington	4.1	3.4	3.8
Georgia	6.0	2.5	3.3
Arkansas and others	4.2	2.1	3.5
<b>Total</b>	<b>72.6</b>	<b>92.7</b>	<b>79.3</b>
<b>Wild:</b>			
Maine	42.1	32.3	30.0
Nova Scotia	16.6	16.0	
Quebec	4.0	8.5	
New Brunswick	4.6	4.0	
Newfoundland	0.4	0.8	
Prince Edward Island	0.8	0.8	
<b>Total</b>	<b>68.6</b>	<b>65.0</b>	

1/ Preliminary.

Sources: Michigan Frozen Food Packers Association and the North American Blueberry Council.



## Banana Imports Up and Prices Bottom Out

*Although U.S. banana imports picked up early in 1994 after staying near 1992 levels in 1993, wholesale prices show signs of recovery from a 2-year slump. Population growth lowered per capita consumption estimates.*

### Bananas Still Most Popular Fresh Fruit

U.S. banana consumption slipped to 26.8 pounds per person in 1993 from a record-high 27.3 pounds in 1992 as population grew and banana supplies in the United States declined less than 1 percent. Bananas remained the most popular fresh-market fruit consumed in the United States, followed by apples at 19.5 pounds per person, and oranges at 14.2 pounds per person in 1993.

Almost all bananas are imported from Central and South America. Hawaiian production declined to less than 6,000 short tons in 1993, while imports topped 4 million tons. Costa Rica was the main source of U.S. banana imports for the second year as shipments from Ecuador declined again in 1993. Ecuador had been the leading source of U.S. banana imports since the mid-1980's, but rains early in 1992 reduced the export-quality crop. Banana imports from Mexico were over 341,000 tons in 1993, but lagged the Guatemala imports of nearly 417,000 tons.

From January through May 1994, 3 percent more bananas were imported to the United States than during the same period in 1993. Imports from Honduras were 45 percent ahead of the year earlier, but have dropped off. Chiquita workers in Honduras were on strike in June and July, cutting Honduran banana shipments nearly in half. Normal shipment volumes are usually restored about 2 weeks after the end of a strike. The strike continued into August.

### Banana Price Drop Stops

Banana prices have shown some signs of recovery from a 2-year slump. New York wholesale prices for bananas averaged 31.6 cents a pound in January-June 1994, up from 31.5 cents for the same months in 1993, although imports were higher in 1994. During all of 1993 wholesale prices averaged 28.5 cents, down 4 percent from the 1992 average, and the lowest since 1987. Weekly whole

sale prices in July 1994 averaged 28.9 cents a pound, up 15 percent from June, and 10 percent above the year earlier.

Banana prices are usually highest between February and May, drop as U.S. summer fruit becomes available, and remain seasonally low from August until January. Lower imports in the summer of 1994 support banana prices while large crops of competing fruits will stifle price gains.

Retail banana prices follow the same seasonal pattern as wholesale prices, and also showed some turnaround. From January through July 1994, retail prices averaged 47.0 cents a pound, up from 46.1 cents during the same period the year earlier. During 1993 retail banana prices averaged 44 cents a pound, down from 46 cents in 1992, and 48 cents in 1991.

Figure 19

### New York Wholesale Banana Prices

Cents/pound

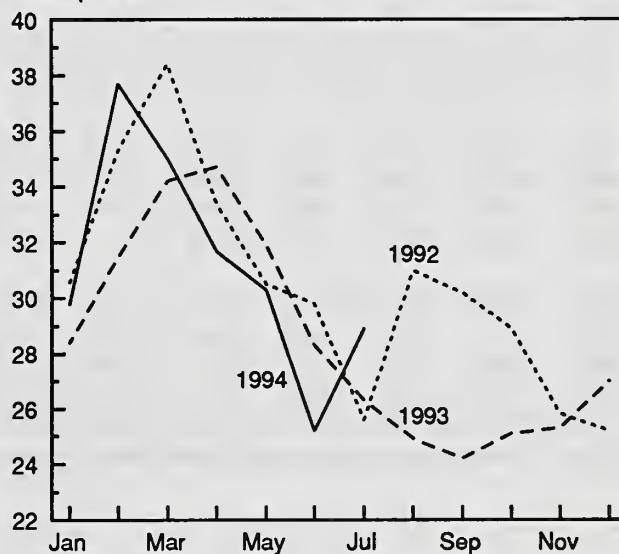


Table 19--U.S. banana imports, including plantains, by country, 1985-93

Year	Colombia	Costa Rica	Ecuador	Honduras	Other	World
-- 1,000 short tons --						
1985	524.9	598.3	833.1	645.8	799.7	3,401.9
1986	622.2	634.5	798.4	598.1	715.1	3,368.2
1987	601.6	616.8	822.8	668.2	677.0	3,386.4
1988	556.3	666.9	873.0	684.1	548.2	3,328.6
1989	537.1	716.5	1,004.9	618.9	539.2	3,416.6
1990	468.0	640.4	1,317.3	544.4	634.4	3,604.5
1991	593.0	766.4	1,287.5	466.6	651.0	3,764.5
1992	546.5	1,067.8	1,057.8	462.0	973.8	4,107.8
1993	753.1	1,033.5	894.3	478.7	930.5	4,090.2

Source: Bureau of the Census, Department of Commerce.

Table 20--Bananas: New York wholesale prices, 1987-94 1/

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
-- Dollars per 40-pound carton --													
1987	10.50	11.50	11.65	10.50	10.88	11.45	10.25	10.45	11.31	9.63	10.50	10.38	10.75
1988	10.94	12.05	11.50	12.19	12.65	14.94	12.25	9.30	12.13	11.30	10.88	11.50	11.80
1989	11.05	12.13	14.38	15.50	16.30	12.81	11.56	10.50	11.38	12.05	12.38	11.38	12.62
1990	13.50	15.69	13.38	13.00	13.50	11.81	13.30	12.00	14.40	12.20	11.50	11.94	13.02
1991	12.35	13.69	18.13	16.35	15.25	15.44	12.20	10.38	10.90	11.38	11.69	11.35	13.26
1992	11.75	13.25	15.20	13.38	12.25	11.70	10.56	12.40	11.25	10.80	10.25	10.06	11.90
1993	11.38	12.58	13.70	13.88	12.75	11.30	10.50	9.95	9.69	10.05	10.13	10.81	11.39
1994	11.90	15.06	14.00	12.69	12.13	10.06	11.56						
-- Cents per pound --													
1987	26.3	28.8	29.1	26.3	27.2	28.6	25.6	26.1	28.3	24.1	26.3	26.0	26.9
1988	27.3	30.1	28.8	30.5	31.6	37.3	30.6	23.3	30.3	28.3	27.2	28.8	32.5
1989	27.6	30.3	36.0	38.8	40.8	32.0	28.9	26.3	28.5	30.1	31.0	28.5	33.1
1990	33.8	39.2	33.5	32.5	33.8	29.5	33.3	30.0	36.0	30.5	28.8	29.8	32.5
1991	30.9	34.2	45.3	40.9	38.1	38.6	30.5	26.0	27.3	28.5	29.2	28.4	33.1
1992	29.4	33.1	38.0	33.4	30.6	29.2	26.4	31.0	28.1	27.0	25.6	25.2	29.8
1993	28.4	31.5	34.2	34.7	31.9	28.3	26.3	24.9	24.2	25.1	25.3	27.0	28.5
1994	29.8	37.7	35.0	31.7	30.3	25.2	28.9						

1/ Average of Tuesday prices during month calculated by ERS for 1993-94.

Sources: Agricultural Marketing Service and Economic Research Service, USDA.



## Tropical Fruit Supplies Swell

*Mango consumption rose as increased imports from Mexico more than offset sharply lower Florida mango output in 1993. Fresh pineapple and papaya consumption climbed with higher Hawaiian output and imports.*

### Weather Whipped Florida Mangoes

Less than 3 million pounds of Florida mangoes were shipped in 1993, compared to more than 20 million pounds in 1992 and 1991. Hurricane Andrew struck Florida's mango-producing region August 24, 1992, doing substantial damage to mango trees and reducing production potential for the next several years.

The remaining Florida mango trees were subject to another severe storm on March 13, 1993, with heavy rain and strong winds that damaged the first fruit set. However, there have been ample mango supplies in U.S. markets as imports from Mexico, as well as Central American and Caribbean countries, have picked up.

### Mexico Supplies U.S. Mango Market

Record-high imports in 1993 increased U.S. consumption of mangoes to 0.93 pounds per person from 0.68 pounds in 1992. Mango imports, mainly from Mexico, provided about 85 percent of total U.S. mango supplies in the last 5 years.

The Mexican shipping season usually begins in February, with a gap between production areas at the end of May, and lasts through August, with July the busiest month.

U.S. imports from Mexico declined 10 percent in 1992 because the early crop was damaged by heavy rains. U.S. fresh mango imports totaled 169 million pounds in 1992 and rose to a record-high 251 million pounds in 1993.

Early shipments of Mexico's 1994 mango crop to the United States were down due to reduced output in the early-maturing areas. U.S. imports of Mexican mangoes between January and May 1994 were down 13 percent from the same period in 1993. However, the industry expects Mexican mango exports to pick up and post a modest gain in 1994.

### Papaya Production and Consumption Rise

Hawaiian papaya production was estimated at 63.7 million pounds in 1993, down from 71.3 million pounds in 1992, but still more than the 1991 output. Fresh use of papaya increased to 58.2 million pounds in 1993 from 55.8 million pounds the year before. However, only 5.5 million pounds were processed, down from an all-time high of 15.5 million pounds in 1992. Although 1993 grower prices for fresh papaya were down to 23.2 cents a pound

Figure 20

### U.S. Mango Consumption

Million pounds

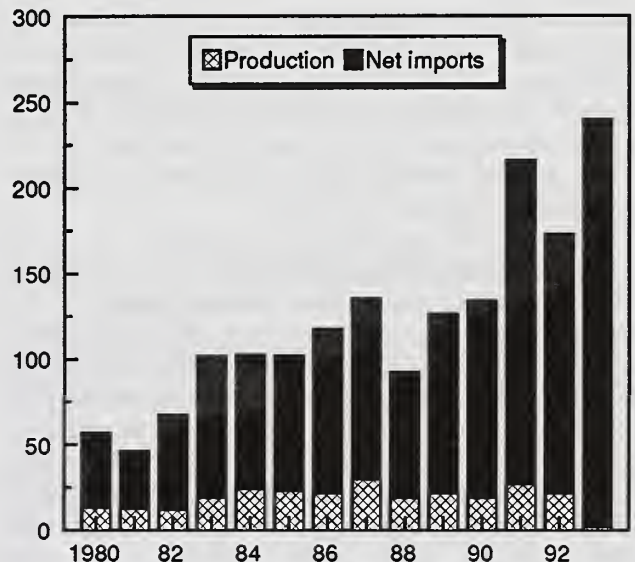


Table 21--U.S. imports of fresh mangoes, by country, 1989-93

Country	1989	1990	1991	1992	1993
-- 1,000 pounds --					
Mexico	96,836	112,290	168,612	151,083	211,136
Haiti	18,384	17,211	29,923	611	18,442
Brazil	0	370	2,282	3,772	6,973
Venezuela	0	0	1,638	5,831	6,259
Peru	0	0	481	6,698	6,063
Guatemala	7	0	33	0	1,393
Ecuador	0	0	291	822	730
Dom. Republic	0	201	335	183	302
Leeward & Windward Islands	0	44	24	75	161
Costa Rica	0	0	37	49	82
Other countries	15	223	368	115	157
World	115,242	130,339	204,024	169,238	251,697

Source: Bureau of the Census, U.S. Department of Commerce.

from 25 cents a pound in 1992, the average all papaya price rose because a smaller share of production was processed and sold for lower-than-fresh prices.

U.S. imports of fresh papaya increased 36 percent to 31.3 million pounds in 1993. Nearly 70 percent of papaya imports were from Mexico. The United States is the leading exporter of papaya to Japan. However, Japan's economic slowdown dampened imports of most fruit, thus, total U.S. papaya exports declined slightly from 1992.

Increased imports and higher Hawaiian output pushed U.S. fresh papaya consumption to 0.29 pounds per person in 1993 from 0.24 pounds the year before. Imports have become an increasingly important contributor to U.S. papaya supplies as Hawaiian production has declined. In 1989, imports were less than 10 percent of supplies compared to 37 percent in 1993.

Year-to-date fresh sales of Hawaiian papaya, as of July 1, 1994, were up 11 percent from the same period in 1993. Papaya prices were lower than a year earlier and planted area was also down, which may cause output to decline later in 1994. Papayas are harvested throughout the year and require about 4 months from bloom to maturity. Production is usually heaviest in September-December because winter storms are more likely to reduce output in the first half of the year.

### Pineapple Imports Boost Consumption

Hawaiian pineapple production in 1993 was down to 740 million pounds, 33 percent less than the year before. However, fresh use rose to 270 million pounds from 260 million in 1992, while processed use dropped to 470 million pounds from 840 million.

Lower production pushed down the value of the 1993 Hawaiian pineapple crop to \$79.9 million from \$102.1 million in 1992. The season-average price for fresh pineapple was lower in 1993, but a larger proportion of the crop was used fresh, so the average grower price for all pineapple rose 16 percent. Acreage harvested declined again in 1993, the sixth consecutive year of lower acreage and reduced production.

U.S. supplies of fresh pineapple rose slightly in 1993, as 270 million pounds of domestic pineapple was augmented by 285 million pounds of imports. Imports have risen steadily since 1988 and raised fresh pineapple consumption from 1.8 pounds per person in 1988 to 2.0 pounds in 1992, and 2.1 pounds in 1993. In the early 1980's, Mexico was the major supplier of U.S. fresh pineapple imports. However, since the 1983 Caribbean Basin Initiative established duty-free status, imports from Central America have increased. In 1993, 57 percent of U.S. fresh pineapple imports were from Costa Rica and 21 percent from Honduras, with only about 6 percent from Mexico.

Figure 21

### U.S. Papaya Consumption

Million pounds

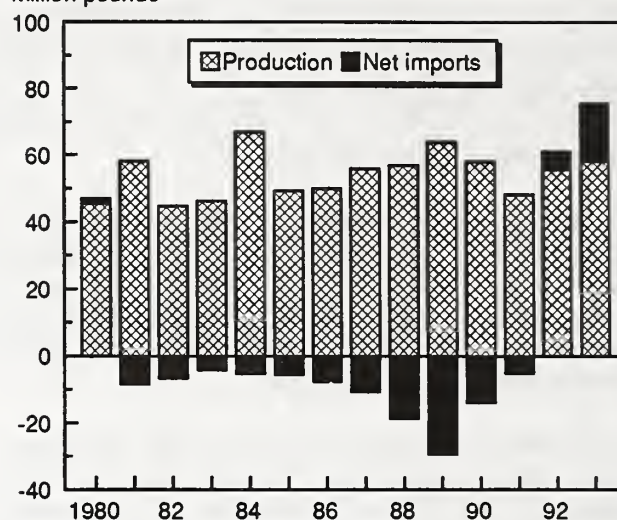


Table 22--U.S. imports of fresh papayas, by country, 1989-93

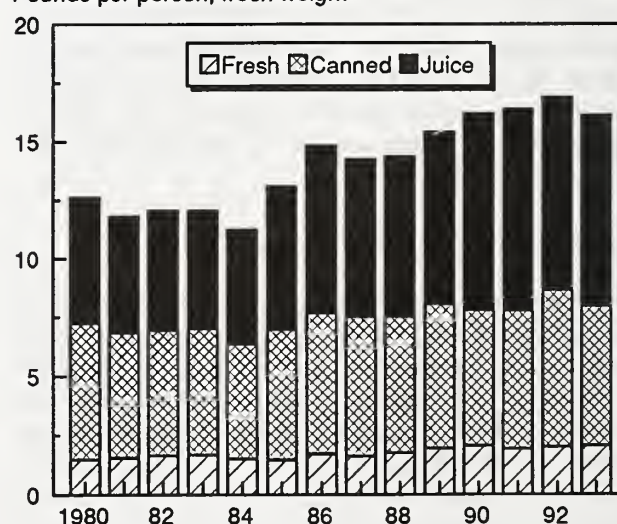
Country	1989	1990	1991	1992	1993
-- 1,000 pounds --					
Mexico	4,565	6,522	8,927	18,615	21,533
Jamaica	90	96	720	2,324	4,509
Belize	182	873	82	1,347	4,297
Dom. Republic	452	82	521	768	683
Haiti	15	0	0	0	250
Thailand	141	280	111	35	10
Bahamas	584	3,631	2,969	0	0
Other countries	13	0	49	4	19
World	6,042	11,483	13,378	23,094	31,301

Source: Bureau of the Census, U.S. Department of Commerce.

Figure 22

### U.S. Pineapple Consumption

Pounds per person, fresh weight





## Canned Pineapple Imports Investigated

The United States International Trade Commission made an affirmative determination in the preliminary antidumping investigation on imports of canned pineapple from Thailand. The Commission found a reasonable indication that a U.S. industry was materially injured by canned pineapple imports from Thailand that were allegedly sold in the United States at less than fair value. The U.S. Department of Commerce will continue the investigation with its preliminary determination due on or about November 15, 1994.

More than 70 percent of Hawaiian-grown pineapple is usually processed, but the United States imports much larger quantities of pineapple products than it exports. In the past 3 years, imports of canned pineapple and juice were 75-80 percent of total supplies, and exports amounted to just 2-4 percent of imports. U.S. canned pineapple exports were mainly to Japan and Canada. Thailand provided about half of U.S. imports of canned pineapple and juice. Imports of pineapple products have been growing as Hawaiian production declines.

Table 23--U.S. imports of fresh and frozen pineapple, by country, 1989-93

Country	1989	1990	1991	1992	1993
-- 1,000 pounds --					
Costa Rica	119,673	122,136	112,689	129,103	161,718
Honduras	30,115	32,957	56,291	69,344	58,857
Dom. Republic	56,549	85,105	71,333	55,570	38,610
Mexico	7,059	8,675	12,233	14,855	17,150
Thailand	6,113	3,585	2,848	4,266	5,977
Hong Kong	0	0	196	154	851
Guatemala	11	0	20	849	681
Indonesia	320	287	0	82	518
Colombia	765	1,175	187	49	218
Panama	0	0	0	0	57
Other countries	1,711	646	154	280	110
World	222,316	254,565	255,952	274,550	284,747

Source: Bureau of the Census, U.S. Department of Commerce.

Table 24--U.S. imports of prepared and preserved (canned) pineapple, by country, 1989-93

Country	1989	1990	1991	1992	1993
-- 1,000 pounds --					
Thailand	305,843	286,495	270,075	384,953	379,243
Philippines	255,734	203,462	258,600	282,599	283,219
Indonesia	33,713	26,896	30,062	36,299	42,091
Japan	19,052	53,455	29,701	15,159	29,262
Mexico	13,832	12,410	12,339	13,065	8,247
Singapore	12,231	8,128	4,312	5,470	6,773
Malaysia	16,184	11,316	8,038	5,049	5,529
Dom. Republic	13	55	40	187	2,013
Honduras	2	0	0	201	1,032
Taiwan	1,325	869	675	485	840
Other countries	8,807	16,543	30,080	18,089	3,686
World	666,737	619,630	643,921	761,555	761,934

Source: Bureau of the Census, U.S. Department of Commerce.

Table 25--U.S. imports of pineapple juice, by country, 1989-93

Country	1989	1990	1991	1992	1993
-- 1,000 gallons --					
Thailand	29,147	35,635	31,537	35,363	41,768
Philippines	37,582	31,491	42,784	41,461	37,689
Costa Rica	221	2,068	3,141	1,973	2,859
Japan	1,245	7,249	3,691	3,417	2,536
Dom. Republic	152	722	3,910	1,230	1,437
Honduras	961	890	1,066	1,142	984
Indonesia	440	710	708	288	871
Mexico	372	3,203	2,753	1,230	220
Brazil	1,087	259	0	299	79
Hong Kong	718	5,858	1,748	30	43
Other countries	2,072	1,290	1,590	1,461	515
World	73,997	89,375	92,929	87,895	89,000

Source: Bureau of the Census, U.S. Department of Commerce.

## U.S. Orange Juice Output Down in 1993/94

*Futures prices for orange juice have declined from earlier in the season under the weight of large U.S. inventories, expected near-normal Brazilian orange juice production, and prospects for a large U.S. orange crop in 1994/95.*

U.S. orange juice production is forecast down 6 percent in 1993/94, primarily due to 7 percent lower orange output in Florida. The all-orange Florida juice yield was 1.57 gallons (42 degrees Brix) per 90-pound box, just under last year's record 1.58 gallons per box. About 95 percent of the Florida oranges were processed, also nearly the same as the year before. Because of reduced output, grower prices for processed oranges in Florida rebounded from 1992/93 lows. From October 1993 through June 1994, monthly prices averaged \$1.90 to \$5.30 per 90-pound box, up from \$1.70 to \$3.70 the year before.

In 1994, higher grower prices for processed oranges reinforced a moderate rise in retail orange juice prices that began before December 1993, the start of the season. From December 1993 through mid-June 1994, retail prices for orange juice averaged 2 percent higher than during the same period a year earlier (according to Nielson scanner data from supermarkets with at least \$4 million in annual sales). Consequently, domestic gallon sales of orange juice were about 1 percent less.

### Imports and Ending Stocks Forecast Higher

Orange juice imports have been unexpectedly higher in 1993/94. Earlier USDA forecasts placed imports lower in 1993/94 because of high beginning stocks and domestic production, the third largest on record.

However, early season commitments by importers resulted in substantially higher imports of orange juice, up 80 percent during December 1993 through May 1994 from the same period a year ago. Imports from Brazil, the United States' main supplier, and Mexico are up. Higher imports will push up ending stocks because consumption is expected to decline this season.

A decline in exports is also expected to contribute to higher ending stocks this coming November. Large world juice supplies have created a competitive market for U.S. exports of orange juice in 1993/94. High beginning stocks and lackluster demand in France, Japan, and Canada, reduced demand for U.S. exports. Also, prices for U.S. exports of frozen concentrate were higher than a year earlier. Consequently, U.S. orange juice exports are expected to decline 8 percent in 1993/94.

### Brazil's 1994 Orange Forecast Revised Up

A third bloom in January 1994 was apparently better than expected, increasing prospects for a larger Brazilian crop. The orange crop for harvest in 1994 is forecast up 2 percent, with a 1 percent decline in the main region in Sao Paulo offset by gains elsewhere. Production in Sao Paulo is now forecast at 300 million 90-pound boxes, up 5 percent from Brazil's industry forecast in January, but down 4 percent from the record crop harvested in 1992.

Table 26--United States: Orange juice supply and utilization, 1985/86-1993/94

Season 1/	Beginning stocks	Production	Imports	Exports	Domestic consumption	Ending stocks 2/
-- Million SSE gallons 3/ --						
1985/86	249	683	546	71	1,204	204
1986/87	204	781	557	73	1,267	201
1987/88	201	907	416	90	1,223	212
1988/89	212	970	383	73	1,258	233
1989/90	233	652	492	90	1,062	225
1990/91	225	876	327	96	1,174	158
1991/92	158	930	286	108	1,097	170
1992/93	170	1,212	326	114	1,344	249
1993/94f	249	1,140	351	105	1,316	319

f = Forecast.

1/ Season begins in December of the first year shown. 2/ Data may not add due to rounding. 3/ SSE = Single-strength equivalent.

Source: Foreign Agricultural Service and Economic Research Service, USDA.



Lower orange output in Sao Paulo and a lower juice yield are expected to reduce Brazilian orange juice production by 5 percent for the processing season that began July 1994. Because beginning stocks are up only marginally, Brazilian supplies will also decline 5 percent.

### Florida Industry Expects Bumper Crop in 1994/95

The industry expects a large Florida orange crop in 1994/95. Average yields are expected to increase because young trees are reaching higher yields. Favorable weather this fall and throughout the harvest could result in a crop substantially larger than last year's crop of 176 million 90-pound boxes. Because of good weather during the bloom, Florida citrus is expected to mature fairly evenly in 1994/95. Data on bearing acreage and trees in Florida, which have been increasing substantially in recent years, will be released September 13, 1994.

### Retail Prices Expected To Decline

Improved orange prospects in Brazil, a small decline in Brazilian orange juice supplies in 1994/95, large U.S. orange juice inventories, and prospects for a large 1994/95 crop in Florida have put downward pressure on prices for near-term orange juice futures contracts on the New York Cotton Exchange. Prices have ranged from \$0.83-\$1.00 per pound solids since June, down from \$1.00-\$1.10 earlier in the calendar year.

Based on these lower futures prices, retail orange juice prices will likely decline in the next few months. The monthly retail price measured by the Bureau of Labor Statistics has already declined, averaging \$1.60-\$1.64 per pound (42 degrees Brix) from May to July 1994, down from \$1.65-\$1.67 from January to April 1994. Retail prices could decline more during the balance of the year and into 1995, if ample supplies of orange juice are available in Brazil and Florida harvests a large 1994/95 crop. Lower

prices are expected to spur more consumption in the coming months, but probably not enough to offset the slower movement that occurred earlier in the season.

The beginning inventory of orange juice on December 1, 1994, is expected to be up more than 25 percent from a year earlier. If Florida harvests a bumper crop, U.S. orange juice supplies will be quite large in 1994/95 unless imports fall dramatically or exports unexpectedly increase during the remainder of the 1993/94 season. Grower prices for processed oranges and retail prices for orange juice will face additional price pressure because of large world supplies relative to world demand for orange juice and heavy competition in the U.S. juice and juice drink market.

Figure 23

### Orange Juice: Near-Term Futures Contract Prices

\$/pound solids

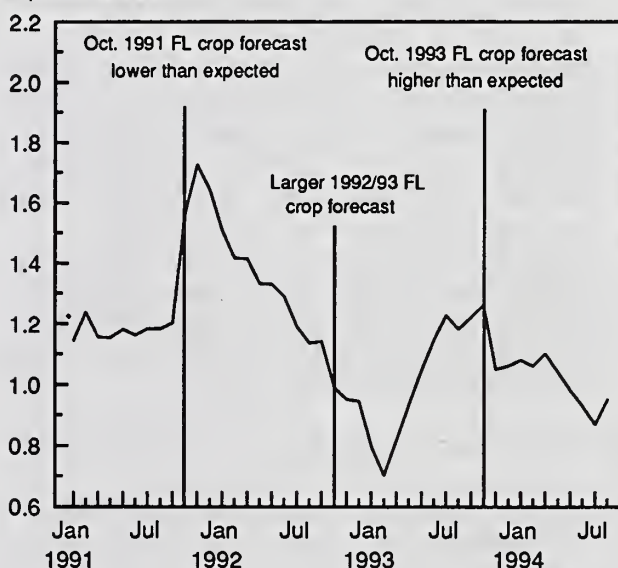


Table 27--Brazilian orange juice: Supply and utilization, 1986/87-1994/95

Season 1/	Beginning stocks	Production	Exports	Domestic consumption	Ending stocks 2/
-- Million SSE gallons 3/ --					
1986/87	284	848	983	28	121
1987/88	121	998	1,038	28	53
1988/89	53	1,002	994	28	34
1989/90	34	1,476	1,348	28	134
1990/91	134	1,213	1,142	28	177
1991/92	177	1,334	1,390	25	96
1992/93	96	1,610	1,532	25	148
1993/94	148	1,518	1,490	25	150
1994/95 4/	150	1,441	1,469	28	94

1/ Season begins in July of the first year shown. 2/ Data may not add due to rounding. 3/ SSE = Single-strength equivalent. 4/ Forecast, August 1994.

Source: Foreign Agricultural Service, USDA.

### **Orange Juice Imports from Mexico Increase**

Mexico is sending more orange juice to the United States this year. From January-June 1994, the United States imported 29 million single-strength gallons of orange juice (mostly frozen concentrate) from Mexico. This is up from 5 million gallons for the same period last year and 26 percent above the 5-year average. So far in 1994, Mexico has accounted for about 15 percent of U.S. orange juice imports, a few points higher than the 5-year average. Almost all the rest comes from Brazil.

The reduced tariff provided under NAFTA has likely boosted Mexican imports. Mexico now has an annual quota for 40 million gallons of orange juice at a tariff of 17.5 cents per single-strength gallon, which is one-half the rate for other countries with most-favored-nation (MFN) status, including Brazil. The tariff on imports above the quota will be reduced 15 percent by 1999, held constant for the following 4 years, and reduced to zero by 2008. Tariffs can return to the MFN schedule if annual imports exceed 70 million gallons (or 90 million gallons during the last 6 years of the 15-year period) and the near-term futures contract price falls below the trigger price for 5 consecutive days. The trigger price is the previous 5-year average for that month. Since NAFTA was implemented on January 1, 1994, the near-term price has been substantially below the trigger price, but, through June, imports had not reached 70 million gallons.

Orange juice production in Mexico has averaged 30 million gallons during the last 5 years, but it is expected to increase because of the more profitable U.S. market resulting from lower tariffs. However, if U.S. demand remains stable, higher U.S. orange juice production will reduce imports. Increased U.S. imports from Mexico will displace Brazilian product rather than increase total imports.

### **Orange Juice Faces Heavy Competition in the Beverage Market**

The orange juice industry is part of the nonalcoholic beverage market that is growing faster than the population as incomes rise and consumers are attracted to new products. However, the popularity and proliferation of juice blends, along with increased consumption of soft drinks and bottled water, means that the orange juice industry now faces considerably more competition.

Consumption of nonalcoholic beverages, including milk, tea, coffee, bottled water, soft drinks, and selected juices, increased from about 105 gallons per person in the early 1980's to almost 120 gallons in the early 1990's. Growth was fueled by increases in soft drinks (from 35 gallons to 44 gallons) and bottled water (from about 2 gallons to almost 8 gallons). Key reasons for the growth include: 1) declining inflation-adjusted soft drink prices, 2) substantial advertising by major soft drink firms, and 3) health aspects associated with drinking bottled water.

According to USDA estimates, total fruit juice consumption has been relatively flat, fluctuating around 7.5 gallons for the past decade. Increased consumption of apple juice, and to a lesser extent, grape juice, offset lower orange juice consumption during the second half of the 1980's. A series of freezes in the 1980's cut Florida orange juice production and led to higher prices relative to alternative juices and beverages.

While the total fruit juice market has been stable, the market for juice drinks (containing less than 100 percent fruit juice, usually 5-35 percent) has grown in recent years as consumers demanded alternatives to pure juice. Manufacturers and marketers responded by offering and promoting a wide variety of juice drinks and blends that creatively combine juice from a number of fruits such as cranberries, peaches, and tropical fruits. Supermarket sales of fruit drinks increased steadily from 2.5 gallons per person in 1989 to over 3 gallons in 1992. Although some juice drinks or blends use orange juice as an ingredient, drink supplies are extended by adding non-juice ingredients, which creates more competition for orange juice.



## Summer Orange Prices Decline in 1994

*Grower and f.o.b. orange prices were lower in July due to larger Valencia orange supplies from California. A smaller navel orange crop led to higher prices than the year earlier for most of the 1993/94 navel season.*

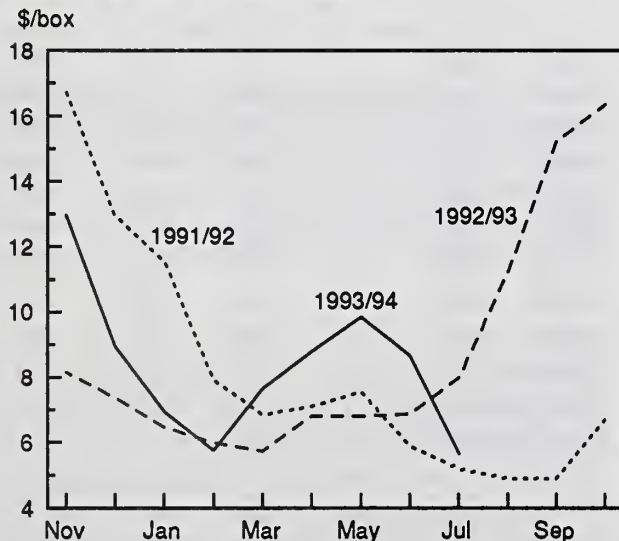
USDA's July 1 forecast of the 1993/94 crop pegs U.S. orange output at 10.4 million short tons, down about 1 percent from the March forecast. Minor adjustments were made in most States as the citrus season drew to a close. The U.S. crop is forecast 7 percent smaller than in 1992/93 due primarily to 7 percent lower production in Florida. California navel output was down 16 percent, but the Valencia crop, which is still being harvested, is forecast up 13 percent.

F.o.b. prices for California Valencias are lower because the crop is larger, with reduced quality relative to last year. The monthly average f.o.b. price for California Valencias was \$6.75 per 37 1/2 pound carton in July 1994, down 15 percent from a year earlier. However, Valencia orange prices earlier in the season were above last year because of low early-season shipments. Also, the navel season finished earlier than last year, reducing orange supplies before the Valencia season was fully underway.

Higher grower prices for navel oranges and early season Valencias pushed up the Consumer Price Index (CPI) for fresh oranges during the first 6 months of 1994. The CPI averaged 177 (1982-84=100), up from 161 in the same period last year. Generally higher prices for the combined navel/Valencia season are expected to reduce fresh-market consumption to an estimated 1.69 million tons in 1993/94, down 8 percent from 1992/93.

Figure 24

### California Oranges: Equivalent On-Tree Returns for Fresh Use



### Exports Forecast Lower in 1993/94

U.S. orange exports are forecast lower in 1993/94 (beginning November) because of smaller navel orange supplies and higher prices. Also, availability of export quality Valencias declined in July, reducing the chances of topping last year's Valencia exports. From November 1993 to May 1994, fresh-market orange exports totalled 421,000 short tons, down 1 percent from the year earlier. Shipments have been lower to the largest foreign market, Canada, but higher to Japan, the second largest market.

### 1994/95 Navel Crop Conditions Good So Far

Industry expectations are for a larger California navel crop in 1994/95 after dipping last season. Field reports indicate a good set with favorable weather in recent months. The first California navel forecast will be released on September 12, 1994. Harvest will begin this fall.

Because the Federal marketing orders for California-Arizona navel and Valencia oranges are to be terminated this summer, weekly shipment, use, and price data are no longer reported by the marketing order committees. The industry is now trying to establish a way to collect shipment and use data. Daily price data will be available from the USDA's Market News Service.

Table 28--Orange: Supply and utilization, 1985/86-1993/94 1/

Season 2/	Supply		Utilization		Fresh domestic consumption
	Produc- tion	Fresh imports	Pro- cessed	Fresh exports	
-- 1,000 short tons --					
1985/86	7,618	31	5,465	568	1,616
1986/87	7,889	22	5,771	584	1,556
1987/88	8,712	25	6,568	465	1,703
1988/89	9,117	9	7,062	559	1,505
1989/90	7,873	13	5,764	576	1,546
1990/91	7,961	69	6,704	257	1,068
1991/92	9,015	17	6,840	546	1,647
1992/93	11,102	11	8,661	613	1,839
1993/94f	10,362	11	8,085	600	1,688

f = Forecast.

1/ Includes Temples.

2/ Marketing season begins in November of the first year shown.

Source: Economic Research Service, USDA.

## Grapefruit Crop Smaller, Fresh-Market Prices Up in 1993/94

*Higher prices and lower sweetness early in the season dampened domestic consumption of fresh grapefruit in 1993/94. High juice carryin stocks pressured processed fruit prices.*

U.S. grapefruit production is expected to total 2.65 million short tons in 1993/94. Output is down 5 percent from 1992/93, but up 10 percent from the 5-year average. Florida's crop is expected to total 2.17 million tons, down 7 percent from the bumper crop in 1992/93. California's projected grapefruit production is 295,000 tons, down 3 percent. The Arizona crop is forecast at 67,000 tons, also down 3 percent. Texas output continues to recover from the December 1989 freeze and is forecast at 120,000 tons, up from 75,000 tons in 1992/93. The U.S. grapefruit harvest is now complete except in the non-desert areas of California.

In 1993/94, lower supplies of grapefruit boosted fresh-market grower prices 10 percent from a year earlier in Florida. However, prices were lower in Texas because of much larger supplies. Prices were also lower in California despite a smaller crop. Quality was reported as average, but demand for California grapefruit appears to be waning as a result of ample supplies from Florida and Texas.

Higher grower prices for fresh relative to processed grapefruit attracted a larger proportion of the Florida crop to the fresh market. Forty-four percent was marketed fresh in 1993/94, up 2 percent from a season earlier. Nevertheless, total Florida fresh-market grapefruit use was about 3 percent lower than in 1992/93.

### Fresh-Market Demand Mixed in 1993/94

Export demand for grapefruit rebounded this season, especially in Japan, the major market. Even though prices have been higher, export shipments for the season are forecast at 535,000 tons, up 10 percent from 1992/93.

Domestic demand, though, has been weak. Low sugar-acids ratio for Florida grapefruit early in the season may have dampened demand for the whole year. U.S. consumption is forecast down 5 percent. Just two seasons ago, grower and retail prices for fresh grapefruit were considerably higher than in 1993/94, but domestic consumption was nearly the same.

### Large Carryin Stocks Weigh on Processed Grapefruit Prices in 1993/94

A smaller grapefruit crop and a lower processed portion reduced Florida's 1993/94 frozen concentrated grapefruit

juice pack to 33 million gallons (40 degrees Brix), down 16 percent from a year earlier. However, a large carry-over from last year's big pack has kept stocks high this season. Stocks in early August were 18 million gallons, up 7 percent from last year.

Large grapefruit juice supplies weighed on grower prices for processing grapefruit, despite the smaller crop and smaller portion sent to processors. Grower prices for processed grapefruit in Florida averaged about \$1.00 per 85-pound box in 1993/94, nearly the same as the year before.

Retail prices for grapefruit juice (concentrated and ready-to-serve) have been 3-4 percent lower this season and, from December through mid-June, movement increased about 4 percent. Unless sales pick up during the rest of the 1993/94 season, carryout stocks will likely remain high. If so, and if Florida harvests a larger crop in 1994/95, prices for processed grapefruit would face price pressure again next year.

Weather conditions have been favorable for tree and fruit growth this year. The first grapefruit production forecast will be available October 12, 1994.

Table 29--Grapefruit: Supply and utilization, 1985/86-1993/94

Season 1/	Supply		Utilization		Fresh domestic consumption
	Produc- tion	Fresh imports	Pro- cessed	Fresh exports	
-- 1,000 short tons --					
1985/86	2,352	3	1,264	353	738
1986/87	2,586	2	1,386	436	766
1987/88	2,801	6	1,469	523	815
1988/89	2,844	4	1,449	587	812
1989/90	1,978	5	1,096	337	550
1990/91	2,256	8	1,015	513	736
1991/92	2,224	12	975	506	755
1992/93	2,801	13	1,522	486	806
1993/94f	2,652	13	1,366	535	765

f = Forecast.

1/ Marketing season begins in September of the first year shown.

Source: Economic Research Service, USDA.



## Almond Crop Up, Walnut Production Steady in 1994

*Higher almond output will replenish low stocks, while the walnut crop is forecast the same as last year. Hazelnut production is forecast lower, and industry expectations are for reduced pecan output following bumper crops last year. The value of tree nut crops harvested in 1993 was a record high \$1.7 billion. All tree nuts registered gains except pecans.*

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The 1994 California almond crop is forecast at 640 million pounds (shelled), up 5 percent from the May 1 forecast and up 31 percent from last year's crop. The bloom was good and resulted in a large set with smaller nut size. The crop was reported in excellent condition in June and July. Besides good weather, estimated bearing acreage is up 2 percent in 1994 to 410,000 acres. The large crop is just under the record of 660 million pounds set in 1987 and 1990.

Moderate U.S. almond production and strong domestic and export demand pushed up grower prices and reduced ending stocks each season from 1991/92 to 1993/94. Beginning stocks on July 1, 1994, are the lowest in 7 years, so increased production in 1994 will boost supplies about 20 percent. The average grower price will likely decline from the near-record \$1.90 per pound set in 1993/94. When growers harvested a big crop in 1990, the average price fell from \$1.02 to \$0.93 per pound. However, beginning stocks were twice as large that year as they are in 1994/95. To reduce supplies available for shipment during at least the first part of the season, the Almond Board of California has requested USDA approval for a 10 percent reserve for the 1994 crop.

High prices and moderate almond production in 1993/94 resulted in a record-high value of \$911 million, up one-third from a year earlier. High returns in recent years have increased plantings in California, which should boost production in the next 3-5 years.

### Walnut Crop Expected To Be Repeated in 1994

Walnut growers are coming off an excellent season. A record-large crop and only 1-percent lower season-average grower price resulted in walnut production value of \$364 million in 1993. The previous record was \$275 million in 1991. In 1993/94, export shipments were brisk, but lower domestic shipments resulted in record ending stocks on July 31, 1994.

For the first time in 6 years, the season-average grower price for pecans was lower than for walnuts. Consequently, domestic walnut use declined as consumers, bakers, and other intermediate users of walnuts apparently switched back to pecans following 5 years of relatively high pecan prices. Higher exports offset part of the decline in domestic use. In-shell walnut exports were

particularly strong to Germany, Italy, and the Netherlands. Exports of shelled walnuts were about the same as in 1992/93.

The 1994 California walnut forecast matches the record 1993 crop, 260,000 tons (in-shell). In June, walnut growers reported a good nut set with little blight or heat problems. Another large crop this fall and higher carry-over will increase walnut supplies more than 10 percent in 1994/95. Continued strong foreign demand would limit walnut price declines in 1994/95. Also, to the extent that pecans compete with walnuts, the expected smaller pecan crop would provide less competition for domestic walnut sales.

### Industry Expects Smaller Pecan Crop in 1994

The industry expects the 1994 pecan crop to decline from the near-record 365 million pounds harvested in 1993, when growers harvested bumper crops in the leading states of Georgia, Texas, and New Mexico. Most other states also produced large crops.

Industry estimates for the 1994 crop range from 180 million to 230 million pounds (inshell). Heavy July rains flooded about 5-10 percent of Georgia's pecan area, increasing the chance for damage from scab, which reduces nut quality and yield. Dry summer weather and a freeze last fall is expected to reduce output in Texas. Good crop conditions were reported in New Mexico, the third largest pecan-producing state. The first USDA forecast will be available in September.

If the 1994 crop hits the mid-point of the industry estimates, pecan supplies (excluding imports) would decline 15-20 percent in 1994/95. Because of smaller supplies, the average grower price is expected to rebound from last year's 59 cents per pound (in-shell), a 5-year low.

### Back-to-Back Record Pistachio Crops

California pistachio growers harvested back-to-back record crops in 1992 and 1993, breaking the pattern of alternating crop size since commercial production began in 1977. The pistachio crop was estimated at 152 million pounds (in-shell) in 1993, up from 147 million harvested a year earlier. Utilized production (shelled basis) declined in 1993 because of a lower shelling ratio.

The season-average grower price for pistachios was \$1.07 per pound (in-shell) in 1993/94, 3 cents above a year earlier. Grower prices were established before the full extent of the crop size was known. However, wholesale prices for pistachios declined during the season due to larger supplies. In June 1994, prices were down about 25 percent from a year earlier.

Exports are forecast lower because larger crops in competing countries such as Turkey and Syria limited U.S. exports in 1993/94. From September 1993 through May 1994, pistachio exports were off 20 percent from a year earlier. Because of a large carryin, record crop, and lower exports, ending stocks are forecast record large on August 31, 1994.

Because the pattern for pistachio tree yields has changed recently and acreage expanded quickly in the 1980's, crop size has been difficult to predict. Consequently, USDA's first indication of 1994 production will be published in September.

#### **Record-High Value of Hazelnut Production**

Strong export and domestic demand pushed up grower prices for hazelnuts from \$552 to \$633 per ton in 1993/94, despite a record-large crop. The value of hazelnut produc-

tion was a record \$24 million, up from the previous 3-year average of \$17 million.

U.S. exports increased 79 percent, boosted by reduced world supplies due mostly to a small crop in Turkey, the world's largest hazelnut producer. Domestic demand was also strong because of the growing popularity of hazelnuts as ingredients in baked goods and snack foods. Record exports and domestic consumption kept ending stocks relatively low despite record U.S. supplies in 1993/94.

The first USDA forecast for the 1994 hazelnut crop is 19,000 tons, less than one-half last year's enormous crop. The hot and dry summer stressed trees in many orchards. Moderate beginning stocks and a smaller U.S. crop will tighten U.S. hazelnut supplies, putting upward pressure on prices. However, foreign demand will decline if Turkey's crop rebounds as expected in 1994.

#### **Macadamia Nut Output Up, Prices Stable**

Macadamia nut production in Hawaii was up slightly in 1993/94 (beginning July) as more acres harvested offset lower yields. The average grower price stabilized at 68 cents per pound (net price) following several years of declining prices due to increasing foreign competition.



Table 30--Tree nuts: Supply, utilization and grower prices, by commodity and marketing year, 1989/90-1993/94

Commodity	Marketing year 1/	Beginning stocks	Marketable production 2/	Imports	Total supply	Exports	Ending stocks	Domestic consumption		Grower price
								Total	Per capita	
									Pounds	
--Million pounds (shelled)--										
Almonds 3/	1989/90	270.1	457.2	0.2	727.5	342.4	203.1	182.0	0.73	1.02
	1990/91	203.1	615.8	0.1	819.0	360.5	241.4	217.1	0.86	0.93
	1991/92	241.4	463.2	0.2	704.8	377.9	148.1	178.8	0.70	1.19
	1992/93	148.1	518.6	0.3	667.0	349.9	133.6	183.5	0.71	1.30
	1993/94 p	133.6	463.8	0.3	597.7	336.5	102.6	158.6	0.61	1.90
Hazelnuts 4/	1989/90	0.7	9.8	7.2	17.6	3.3	0.6	13.7	0.06	1.02
	1990/91	0.6	13.7	10.1	24.4	4.7	1.1	18.5	0.07	1.10
	1991/92	1.1	18.9	6.2	26.2	7.1	3.0	16.0	0.06	0.93
	1992/93	3.0	21.1	8.8	32.9	10.6	2.8	19.4	0.08	0.69
	1993/94 p	2.8	31.0	8.3	42.1	19.0	1.7	21.4	0.08	0.80
Pecans	1989/90	70.8	102.0	10.0	182.8	9.5	58.3	115.0	0.46	1.76
	1990/91	58.3	97.5	30.5	186.3	17.8	45.9	122.6	0.49	2.53
	1991/92	45.9	118.9	18.7	183.5	17.2	49.6	116.7	0.46	2.60
	1992/93	49.6	74.1	30.3	154.0	16.5	48.2	89.3	0.35	3.24
	1993/94 p	48.2	156.9	23.2	228.3	14.8	78.8	134.7	0.52	1.36
Walnuts 5/	1989/90	48.2	195.6	0.1	244.0	77.9	54.2	111.9	0.45	1.28
	1990/91	54.2	180.8	0.1	235.1	72.5	48.7	113.8	0.45	1.30
	1991/92	48.7	210.4	0.1	259.3	88.2	55.7	115.3	0.45	1.30
	1992/93	55.7	168.1	8.0	231.8	75.0	37.2	119.6	0.47	1.69
	1993/94 p	37.2	215.6	1.4	254.2	81.5	72.3	100.4	0.39	1.68
Macadamias	1989/90	N.A.	11.9	3.8	15.7	0.7	N.A.	15.0	0.06	3.77
	1990/91	N.A.	11.7	5.2	16.9	0.9	N.A.	16.0	0.06	3.50
	1991/92	N.A.	11.9	2.9	14.8	1.7	N.A.	13.1	0.05	2.91
	1992/93	N.A.	10.3	4.4	14.7	2.1	N.A.	12.7	0.05	3.16
	1993/94 p	N.A.	11.2	3.9	15.1	1.5	N.A.	13.7	0.05	3.20
Pistachios 6/	1989/90	14.9	18.0	2.1	35.1	5.2	10.0	19.8	0.08	3.49
	1990/91	10.0	42.0	0.9	52.9	9.6	16.9	26.5	0.11	2.91
	1991/92	16.9	25.5	0.2	42.6	16.4	6.1	20.1	0.08	3.75
	1992/93	6.1	65.4	0.4	71.8	28.1	17.6	26.1	0.10	2.31
	1993/94 p	17.6	61.9	0.7	80.2	20.6	28.0	31.6	0.12	2.61
Other Nuts 7/	1989/90	N.A.	0.0	146.4	146.4	19.2	N.A.	127.2	0.51	--
	1990/91	N.A.	0.0	151.5	151.5	25.4	N.A.	126.1	0.50	--
	1991/92	N.A.	0.0	142.7	142.7	31.8	N.A.	110.9	0.44	--
	1992/93	N.A.	0.0	175.8	175.8	27.4	N.A.	148.4	0.58	--
	1993/94 p	N.A.	0.0	170.0	170.0	35.0	N.A.	135.0	0.52	--
Total	1989/90	404.7	794.5	169.8	1,369.0	458.2	326.2	584.6	2.35	--
	1990/91	326.2	961.5	198.4	1,486.1	491.4	354.0	640.7	2.55	--
	1991/92	354.0	848.9	171.1	1,373.9	540.4	262.5	571.1	2.25	--
	1992/93	262.5	857.6	228.1	1,348.1	509.7	239.3	599.1	2.33	--
	1993/94 p	239.3	940.4	207.8	1,387.6	508.9	283.4	595.4	2.29	--

N.A. = Not available. -- = Does not apply. P = Preliminary.

1/ Marketing season begins July 1 for almonds, hazelnuts, macadamias, pecans, and other nuts; August 1 for walnuts; and September 1 for pistachios. 2/ Utilized production minus inedibles and noncommercial useage. 3/ Stock and export figures from the Almond Board of California. 4/ Stock and export figures from the Hazelnut Marketing Board. 5/ Stock figures from the Walnut Marketing Board. 6/ Stock figures from the California Pistachio Commission. 7/ Includes Brazil nuts, cashew nuts, pine nuts, chestnuts, and mixed nuts.

Source: Economic Research Service and National Agricultural Statistical Service (utilized production and stock data, except where noted), USDA; and Bureau of the Census, U.S. Department of Commerce (trade data, except where noted).

## The Economic Effects of Terminating the Federal Marketing Order for Plums

by  
Boyd M. Buxton<sup>1</sup>

**Abstract:** After the termination of the Federal marketing order for plums, the California plum industry operated without regulations in 1991 and under much less restrictive voluntary marketing agreements during 1992 and 1993. Selected economic variables are contrasted before and after the Federal marketing order was terminated to evaluate the possible effects of the order. Results indicate that terminating the Federal order increased price variability, reduced the demand for plums, and reduced grower revenue and prices. Shipping patterns and grower-to-f.o.b. price margins were not significantly affected.

**Keywords:** Plums, fruit marketing orders, price analysis, demand, price variability.

### Introduction

Federal marketing orders have been extensively used in marketing California plums, peaches, pears, and nectarines since authorized by the Agricultural Adjustment Act of 1937. All regulations for plums were suspended before the 1991 season with the order itself being terminated on September 12. For the entire 1991 marketing season, the plum industry operated without marketing regulations. In 1992 and 1993 it operated under voluntary marketing agreements designed solely to fund promotions.

The economic effects of the marketing orders are often couched in theoretical terms since it is rarely possible to observe actual conditions both with and without regulations. The termination of the Federal marketing order for plums provides an opportunity to empirically observe marketing conditions with and without regulations. Although other factors not necessarily associated with regulation or deregulation can cause marketing conditions to vary over time, the comparison of regulated and non-regulated periods should provide insights regarding the effect of regulation and, perhaps, certain types of marketing orders. This paper contrasts selected economic variables likely to be affected by Federal marketing orders before and after the suspension of regulations and the termination of the order.

### The Objective of Federal Marketing Orders

The Congressional intent stated in the enabling legislation for marketing orders was primarily to benefit producers of agricultural commodities by authorizing producers and handlers to engage in specified types of joint activities. These activities were to enhance producer returns and generally promote orderly marketing conditions. The definition of orderly marketing usually includes an orderly flow of commodity to markets, the absence of large and

unreasonable price fluctuations, and the marketing of only well matured fruit, thereby, avoiding possible adverse affects that immature or low-quality fruit might have on consumer demand and grower prices.

### The Federal Marketing Order for Plums

Regulations under the Federal marketing order for California plums included grade, size, quality, maturity, pack, and container marking requirements and provisions for inspection, promotion, and research. Although the plum marketing order had no direct quantity restriction, the regulations did indirectly restrict the amount of fruit available for market. Under the Federal order, plums were required to at least meet U.S. No. 1 grade involving fruit maturity at picking, internal discoloration, size variation of fruit within packages, and stem-end crack tolerances. The marketing order also required that all fresh market plum shipments, wherever marketed, be inspected by the Federal-State Inspection Service. The order also established mandatory assessment rates to fund inspection, promotion, research, the collection and dissemination of statistical and marketing information, and program administration costs.

The voluntary agreements in 1992 and 1993 incorporated voluntary assessments for promotion, but had no maturity or size restrictions and required no industry referendum or obligation for producers or handlers to participate. Over 50 handlers representing over 75 percent of the volume, signed the agreements and obligated themselves to participate. Although voluntary, inspections were often required by buyers and resulted in a significant amount of fruit being inspected during 1992 and 1993.

A new state marketing order went into effect for the 1994 season. The new order, similar to the terminated Federal order, grew out of a perception that the industry is best served if consumers are provided a consistent quality of well-matured fruit and all industry participants abide by the same rules.

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## Results of Terminating the Plum Marketing Order

The Congressional intent of the Federal marketing order for plums suggests examining and contrasting several economic variables to evaluate the major effects of regulations. These include the orderly flow of product to market, price variability, possible adverse effects on demand by shipping immature or otherwise poor quality fruit, grower returns, and price margins. Comparisons of these variables were made between the three unregulated seasons since the suspension of regulations and the termination of the Federal plum order (1991 through 1993) and the previously regulated seasons.

### Shipping Patterns Remain Stable

The marketing season for plums, beginning in May and ending about mid-September, largely reflects the maturity and harvesting pattern of early-to-late maturing varieties. For each of the more than 56 major plum varieties specifically identified in the previous Federal marketing order, the harvest dates were tightly linked to the fruit maturity dates, limiting discretionary variation in the harvest and shipping season. When a given variety of plums mature, they must be harvested and marketed within days.

The seasonal pattern of plum shipments to market of those participants in the voluntary marketing agreement was nearly the same with and without regulations (figure A-1). This suggests that possible early shipments of immature fruit by signatories to the agreement was at least very limited following the termination of the Federal marketing order. However, no definitive information is available on whether shipments by handlers that were not signatories varied from the usual pattern under regulations prior to 1991. A relatively small amount of immature fruit reaching the market could have a significant impact on demand later in the season.

### Price Variability Increased Without Regulation

A legislative objective of marketing orders is to help stabilize prices. All-plum monthly f.o.b. prices in Central California were developed for the 1987 to 1993 marketing seasons. These prices reflect all variations over time including long-term trend, cyclical, seasonal, and irregular (figure A-2).

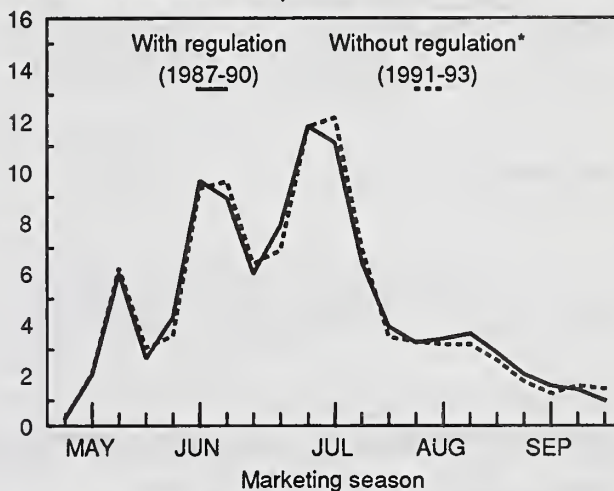
The irregular and within-season price variability is more likely to be affected by marketing orders than trend or

cyclical price variations, although all can be affected. Within a marketing season, prices are relatively high early in the season when supplies are limited, but decline and reach a minimum about mid-season when more varieties are mature and shipments are heaviest. Prices then increase the last half of the season as shipments decline and supplies become more scarce. This pattern is evident in all seasons from 1987 except for 1993. A possible explanation for the deviation in 1993 is discussed in the next section.

Figure A-1

### Percent of California Plum Shipments

Percent of total season shipments

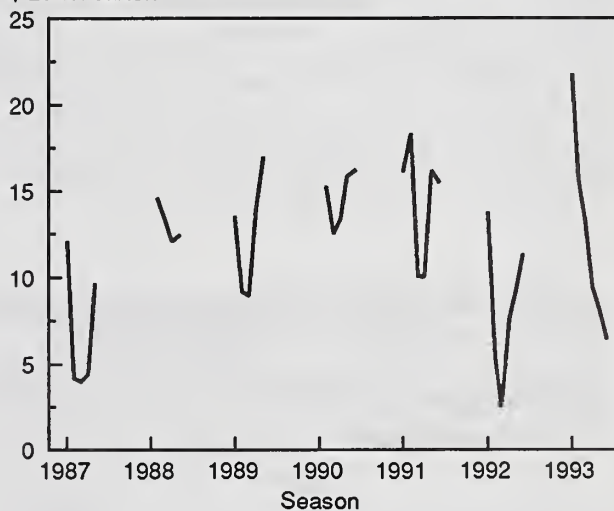


\*Includes shipments by signatories to marketing agreements representing about 75 percent of total volume.

Figure A-2

### Plums, Seasonal F.O.B. Prices

\$/28-lb. carton



The coefficient of variation of prices within the seasons was 0.2253 when the Federal order was in effect (1987 to 1990) but 0.3602, or 60 percent higher, after the Federal order was terminated (1991 to 1993) (table A-1). The coefficient of total variation that reflects all sources of variation (trend, cyclical, seasonal, and irregular) is still 24 percent larger without regulations. These results strongly suggest that prices, especially within marketing seasons, became more variable following the termination of the Federal plum order in 1991.

Table A-1--Coefficient of price variation for plums, with and without regulation

Variation	With regulation 1987 to 1990	Without regulation 1991 to 1993
Within season only	0.2253	0.3602
Total	0.3328	0.4124

### Possible Demand Shifts Without Regulation

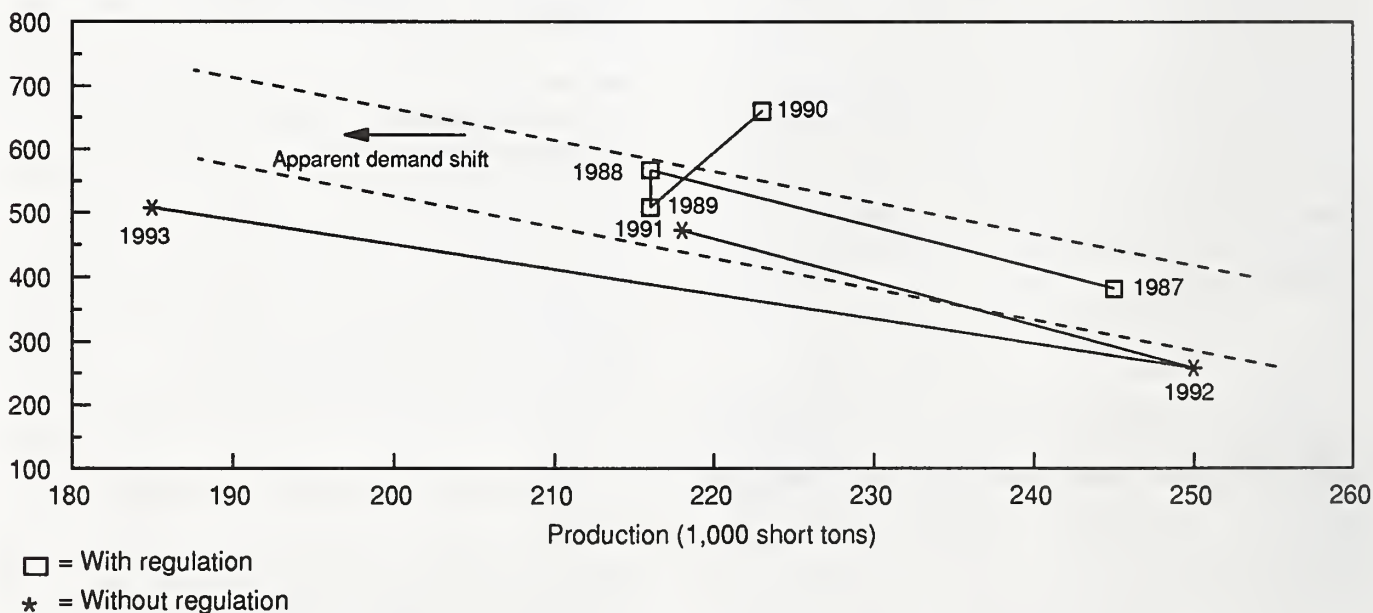
High early-season prices provide incentives to harvest and ship fruit before it fully matures. It is generally argued that, when immature fruit reaches the market, demand is adversely affected as consumers likely will be reluctant to make second purchases. Maturity standards in Federal orders decrease the likelihood that immature fruit will be shipped to the market, thereby, helping to sustain demand as the season progresses. Comparing the price-quantity relationships with and without regulations indicates a likely shift in demand following the termination of regulations (figure A-3). Each of the price-quantity observations without regulations from 1991 to 1993 are below those when the Federal market order was in effect, indicating a shift in demand.

The seasonal price pattern in 1993 deviated from the usual pattern. Prices started high and declined throughout the season, despite the fact that 1993 was the smallest plum crop since 1986. A smaller crop would be expected to cause upward pressure on prices during the last half of the season. This unusual price pattern may be further evidence of how the lack of maturity regulations early in the season adversely affected consumer demand later.

Figure A-3

### Annual Production and Grower Prices for California Plums, 1987 to 1993

1993 dollars/ton





## Producer Revenue Likely Lower Without Regulations

A stated intent of marketing orders is to increase grower revenue. Because many supply and demand factors affect grower revenues from year to year, it is difficult to draw firm conclusions about the impact of terminating the order on the value of plum production. Grower revenue in 1993 dollars was averaged for 3-year periods beginning with 1973-75 and ending with 1991-93 (figure A-4). A linear regression of the five 3-year-average revenues from 1973-75 to 1988-90 when regulations were in effect show a general increase in revenue. Results indicate that revenue from 1991 to 1993 averaged substantially below the projected band formed by the regression minus the standard error of the regression estimate. This is evidence that discontinuing the Federal marketing order for plums reduced grower returns.

## Grower and F.O.B. Price Margins

Except for 1991 when the margin between the grower and f.o.b. prices rose, f.o.b. prices generally followed grower prices over the 1987 to 1993 period (figure A-5). F.o.b. prices tended to fall more than grower prices in 1992 and, consistent with generally lower grower revenue, f.o.b. prices were also lower in 1992 and 1993 than in the previous 4 years (1988 to 1991). The margin was lower in 1992 and 1993 relative to all previous years except 1987. However, this evidence is inconclusive.

## A Statistical Test for Regulation Is Significant

Plum production, trend, and a dummy variable to distinguish the years with regulation (1973 to 1990) from the years without regulation (1991 to 1993) explained 85 percent of the variation in weekly f.o.b. plum prices during 1973 to 1993. All variables were highly significant at the 99 percent level of confidence (table A-2). The coefficient for the dummy variable was negative and significant at 99 percent, suggesting that terminating the Federal order significantly reduced grower prices.

Estimated f.o.b. plum prices tracked actual prices very closely (figure A-6). The equation correctly identified the major turning points and the direction of year-to-year price changes except from 1988 to 1989. The price projections tracked actual prices almost exactly for 1991 to 1993, the period without Federal marketing order regulations.

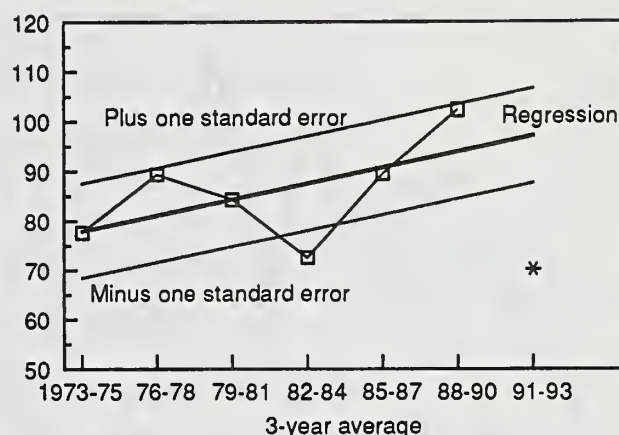
## Summary and Conclusions

The termination of the Federal marketing order for California plums in 1991 provides an opportunity to examine, with and without the Federal marketing order regulation, major economic variables implied by the Congressional intent and commonly used as a justification of marketing orders. The 1991 to 1993 marketing seasons,

Figure A-4

## Grower Revenue for California Plums

Million 1993 dollars



□ = With regulation.  
\* = Without regulation.

Figure A-5

## California Plums: Grower and F.O.B. Price Margin

\$/28-lb. carton

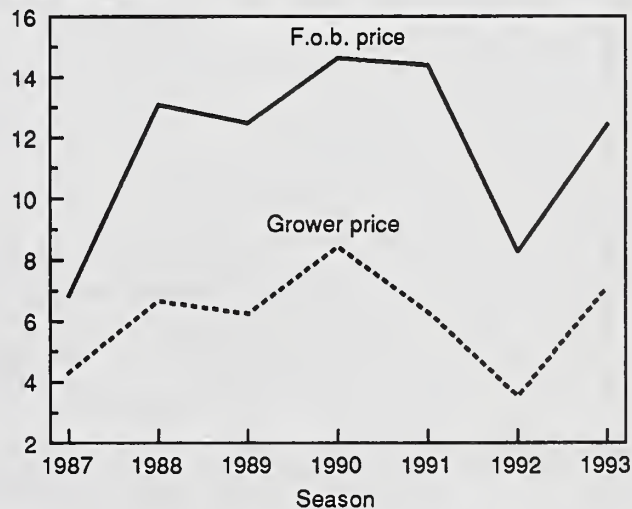


Table A-2--Regression of factors affecting U.S. plum prices, with and without Federal market order regulation, 1973 to 1993

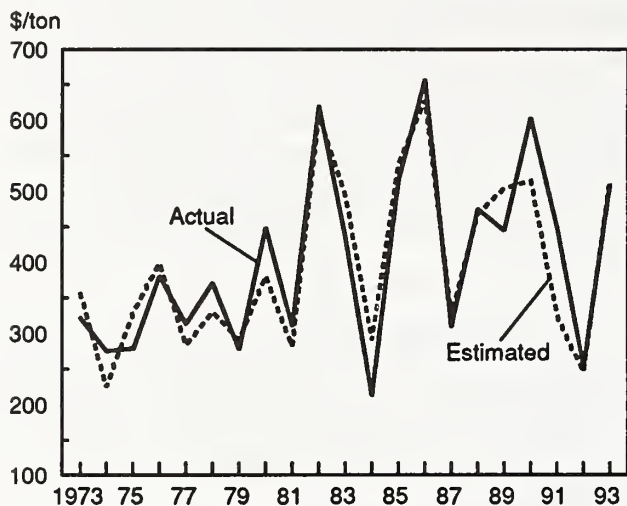
Variable	Coefficient	"t" -statistic
Constant	-1,899.200	-7.74
Production	-3.564	-8.17
Trend	35.631	9.85
Regulation variable 1/	-200.115	-4.72
R squared	0.853	N.A.

N.A. = Not applicable.

1/ Variable was zero 1973-90, and one 1991-93.

Figure A-6

## California Plums: Grower Prices



following termination of the order, were compared with seasons when the order was in effect. Results indicated that terminating the Federal order likely increased price variability, reduced demand for plums, grower revenue, and prices. Shipping patterns and grower-to-f.o.b. price margins likely were not affected. However, incomplete shipment data was available for the unregulated 1991 to 1993 period because shipments were only reported by handlers who signed the less restrictive marketing agreements.

Many factors can affect the economic variables from a period with regulations to a period without regulation because the two are separated in time. However, examining important economic variables indicates that there is reasonable evidence that the Federal marketing order for plums achieved many of the goals intended by Congress, including improved grower returns and orderly marketing.



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3. FTP--usda.mannlib.cornell.edu, login as "anonymous" with your ID name or e-mail address as the password, then cd usda.

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